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FM 21-30

WAR DEPARTMENT BASIC FIELD MANUAL

ARDEN W. EMERICK, JR.

CONVENTIONAL SIGNS, MILITARY SYMBOLS, AND ABBREVIATIONS

WAR DEPARTMENT + OCTOBER 1943

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FM 21-30

ARDEN W. EMERICK, JR.

**CONVENTIONAL SIGNS,
MILITARY SYMBOLS,
AND ABBREVIATIONS**

This manual supersedes FM 21-30, 26 November 1941,
including C 1, 9 May 1942, and C 2, 27 July 1942.



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FM 21-30, Conventional Signs, Military Symbols, and Abbreviations, is published for the information and guidance of all concerned.

[A. G. 300.7 (21 May 43).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
Major General,
The Adjutant General.

DISTRIBUTION:

B and H (5); R (10); Bn (5), 1 (10); C (10).
(For explanation of symbols see FM 21-6.)

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BASIC FIELD MANUAL

Conventional signs, military symbols, and abbreviations

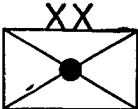
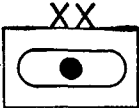
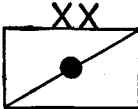
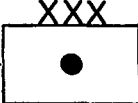
CHANGES } WAR DEPARTMENT,
No. 1 } WASHINGTON 25, D. C., 21 April 1944.

FM 21-30, October 1943 is changed as follows:

27. APPLICATION OF SPECIAL SYMBOLS.

* * * * *

The following are added to Chart 33.—Examples—
Field Artillery (page 70).

Division Artillery 7th Infantry Division.....		7
Division Artillery 2d Armored Division.....		2
Division Artillery 4th Cavalry Division.....		4
Corps Artillery III Corps.....		III

[A. G. 300.7 (24 Mar 44).]

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FM 21-30

C 1

BASIC FIELD MANUAL

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The Adjutant General.

DISTRIBUTION:

As prescribed in paragraph 9a, FM 21-6: B and H (5); R (10); Bn (5) except Bn 1 (10); C (10); RTC (800); UTC (800).

For explanation of symbols, see FM 21-6.

BASIC FIELD MANUAL

CONVENTIONAL SIGNS, MILITARY SYMBOLS
AND ABBREVIATIONS

CHANGES } WAR DEPARTMENT
No. 2 } WASHINGTON 25, D. C., 15 February 1945

FM 21-30, 15 October 1943, is changed as follows:

Chart 1, page 3, change note to read as follows:

NOTE.—Information on grids, World Polyconic, U. S. Domestic, State, and British Grids will be found in FM 21-26.

Chart 10, page 25, ninth symbol:


Hospital ----- Hosp  or 

Chart 11, page 26, change note to read as follows:

NOTE.—Scales larger than * * * smaller, omit wells and tanks. No pipe lines are shown on **topographical** maps of any scale.

Chart 13, page 37:

Add the following between third and fourth symbols:

Coast Artillery ----- 

Delete note 1.

24. COLOR. When colors are * * * shown in red. Symbols for mine field areas, demolitions, road blocks, and other engineer obstacle activities, are executed in green. (See chart 21, p. 53.) The only exceptions are the following:

* * * * *

Chart 15, page 42, fourth symbol, change "91 Fi" to "91 Ftr."

Chart 16, page 43, tenth symbol:


Self-propelled antiaircraft artillery -----  (SP)

Chart 17, page 44:

Fifteenth symbol, change "Fi" to "Ftr."

Delete twenty-second symbol.

Chart 17, page 45:

Fourth symbol, change "Blue" to "Green."

Twelfth and thirteenth symbols are changed to read as follows:

Normal **barrage**, Battery B, 105-mm howitzer (100 by 200 yards).

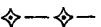
Emergency **barrage**, Battery B, 105-mm howitzer (100 by 200 yards).


Add the following symbol:


Artillery concentration (200 yards in diameter; concentration number in symbol)-----





Add the following chart:


Harbor defense boundary----- 


Plotting room----- 


Magazine----- 

Casemated battery----- 

Turreted battery----- 

Shielded battery----- 

Mine casemate----- 

Harbor entrance control post----- 

Loops----- 

Sono-buoys----- 

Heralds----- 

Plot of ship's course:


Target No. 1 battleship----- 

Chart 18.1.—Coast Artillery Corps activities.

25. ROAD AND BRIDGE CLASSIFICATION. On topographic maps, * * * symbols and abbreviations.

* * * * *

b. General characteristics of roads and bridges.

(1) *Traffic lanes.*

1, 2, 3, etc. * * * for light two-way traffic.

2- Two-lane roadway having occasional one-lane defiles, and suitable for moderate two-way traffic.

* * * * *

Chart 21, page 52:

First symbol, change "Blue" to "Green."

Symbols 14 to 19 are changed to the following:

Single string of antitank mines ----- ○ ○ ○ ○ ○

Booby-trapped antitank mine ----- ●

Double antitank mine ----- ●

Double **booby-trapped** antitank mine ----- ●

Antipersonnel mine ----- (P)

Trip wire ----- T

Chart 21, page 53, delete the note, "To be reproduced in *green* (in black if green is not available)."


Chart 21, page 54, first symbol:

Submarine mines, controlled.


(This symbol indicates one 13-mine group, and a separate symbol is used for each group. As it appears * * * the mine group.)

Chart 24, page 58:

Under "Petroleum supply," add the following symbol:

Pumping station ----- 

Under "Traffic and traffic control," add the following symbol:

Culvert ----- 

27. APPLICATION OF SPECIAL SYMBOLS. The following examples * * * the desired information. **The examples shown illustrate some of the possible combinations; because of frequent changes in Tables of Organization they do not always represent actual units.** The following diagram * * * are built up:

Chart 26, page 63, fifth and sixth symbols, change "Pcht" to "Prcht."

Chart 26, page 64, last symbol:

Battery A, 105th Antiaircraft Artillery Automatic Weapons Battalion (self-propelled) -----

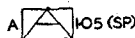


Chart 28, page 66:

Second symbol, change "IV Fi" to "IV Ftr."

Third symbol, change "18 Fi" to "18 Ftr."

Seventh symbol, change "66 Serv" to "66 Sv."

Chart 29, page 67:

Third symbol, change "1 Wpn" to "1 Wpns."


Fourth symbol, change "Wpn" to "Wpns."

Last symbol, change "Park, Mechanized Cavalry Group" to "Proposed Park, Cavalry Group, Mechanized."

Chart 30, page 68:

First symbol, change "1 Serv Avn" to "1 Sv Avn."


Third symbol, change to read:


Company B, 2d Chemical Mortar Battalion 


Fourth symbol, delete entire line and symbol.


Chart 31, page 68, delete entire chart and substitute the following:

Command Post, Harbor Defense 

Command Post, Antimotor Torpedo Boat Battalion 

Searchlight Battery, 104th Coast Artillery Battalion, HD 

912th Coast Artillery Battalion (Railway) 

57th Coast Artillery Battalion (155-mm gun) 


98th Coast Artillery Group, Harbor Defense Observation Post, Harbor Defense 

Chart 31.—Examples—Coast Artillery Corps.

Chart 32, page 69:

Fourth symbol, change "126 Mtn" to "126 Mt."

Sixth symbol, change "Pcht" to "Prcht."

Chart 33, page 70:

Fifth symbol, change "Serv" to "Sv."

Twelfth symbol, change "125 Pcht" to "125 Prcht."

Last symbol, change designation to "Forward Observer Post, Battery A, 1st Field Artillery Battalion."

Chart 34, page 71:

Eighth symbol, change "Wpn A" to "Wpns A."

Twelfth symbol, change "502 Pcht" to "502 Prcht."

Chart 36, page 73:

Third and eighth symbols, change "Serv" to "Sv."

Tenth symbol, change unit designation to "1st Ordnance Company (Medium Maintenance)."

Chart 37, page 74, last symbol, delete entire line and symbol.

Chart 38, page 75, third and eighth symbols, change "Tt" to "TT."

30. LIST OF ABBREVIATIONS AND ITS USES.

*	*	*	*	*
<i>List</i>				
A				
*	*	*	*	*
air base-----				AB
Airborne-----				Abn
*	*	*	*	*
antiaircraft balloon-----			AA/B	
antiaircraft operations officer -----			AAOO	
antiaircraft operations room -----			AAOR	
antimechanized-----			AMecz	
*	*	*	*	*
Antisubmarine Command-----			Antisub Comd	
antitank -----			AT	
appendix-----			App	
*	*	*	*	*
armor-piercing-----			AP	
Army Engineer Service-----			A Engr Sv	
Army headquarters-----			AHQ	
Army medical laboratory-----			A Med Lab	
Army medical service -----			A Med Sv	

Army Postal Service.....	APS
* * *	* *
automatic.....	Auto
automatic weapons.....	Auto Wpns
aviation gasoline.....	Agas
* * *	* *

C

* * *	* *
collecting (company) (point) (sta- tion).....	Coll (Co) (Pt) (Sta)
column	Colm
combat (car) (zone).....	C (Car) (Z)
* * *	* *
commercial.....	Coml
communication.....	Com
* * *	* *

D

dead reckoning.....	D/R
defense	Def
delivered or delivery.....	Delv
* * *	* *

E

echelon	Ech
electrical or electrician.....	Elec
* * *	* *
exclusive..	Excl
executive ..	Ex

F

field -----	Fld
field laboratory-----	F Lab
* * *	* *
field train-----	F Tr
fighter-----	Ftr
fighter control area-----	FCA
* * *	* *
final protective line-----	FPL
fire-direction center-----	FDC
first lieutenant-----	1st Lt
* * *	* *
flash ranging-----	FR
forward -----	Fwd
forward interpretation unit-----	FIU
forward observer -----	Fwd Obsr
* * *	* *
from-----	Fr

G

* * *	* *
general service schools-----	GSS
general service-----	Gen Sv
general support-----	G/S
* * *	* *
ground control interception-----	GCI
group -----	Gp
groupment-----	Gpmt
* * *	* *

H

* *	* *	* *	* *
headquarters.....	Hq		
headquarters and service (battery).....	H&S (Btry) (Co)		
(company) (troop)	(Tr) or Hq & Sv (Btry) (Co)		
	(Tr)		
heavy machine gun	HMG		
heavy bombardment	HB		
heavy weapons company.....	Hv Wpns Co		
highway.....	Hwy		
highway transportation officer.....	HTO		
holding and reconsignment point.....	HRP		
horizontal control operator.....	HCO		
* *	* *		
hospital.....	Hosp		
howitzer	How		

M

machine gun	MG		
machinist.....	Machst		
* *	* *		
material.....	Mat		
mechanic	Mech		
mechanized	Mecz		
medium (tank).....	M (Tk)		
messenger	Msgr		
meteorologist.....	Mtgst		
mil	<u>mi</u>		
military attaché.....	Mil Att or MA		
* *	* *		
Mobilization Training Program.....	MTP		

mortar-----	Mort
motorcyclist-----	Mtrelt
motor gasoline-----	Mgas
motorized -----	Mtz
Motor oil-----	Moil
motor transport -----	MT
motor-tricycle-----	Mtricl
mountain -----	Mt
move-----	Mv
* * *	* *

O

objective, -----	Obj
observation post-----	OP
observer -----	Obsr
officer in charge-----	o/c
* * *	* *

P

pack -----	Pk
parachutist-----	Prchst
park-----	Prk
* * *	* *
patrol boat-----	PAT Bt
personnel -----	Pers
photograph or photographic-----	Photo
pigeon-----	Pgn
pilot -----	Plt
pioneer and demolition section-----	P & D Sec
* * *	* *
prisoner-----	Pris
proving ground-----	Pr Gr
pursuit -----	Pur

Tank Destroyer-----	TD
* * *	* *
<i>Delete:</i> telegram-----	Telg
telegraph -----	Tg
telegraph printer-----	Tgp
telephone -----	Tp
teletypewriter, teletype -----	TT
teletypewriter center-----	TTC
theater headquarters -----	THQ
* * *	* *
traffic control station-----	TCS
trailer -----	Tr
train commander-----	Tn Comdr
training circular-----	TC
* * *	* *

V

vehicle -----	Veh
vertical control operator-----	VCO
* * *	* *

W

* * *	* *
water tank (battalion) (train)-----	W Tk (Bn) (Tn)
weapons carrier-----	Wpns Carr
weapons (troop) (platoon)-----	Wpns (Tr) (Plat)
weather -----	Wea
welder-----	Wldr
white phosphorus -----	WP
winch-----	Wn
wing -----	Wg
wrecker-----	Wkr

APPENDIX

LIST OF REFERENCES

Mapping and Charting.....	AR 300-15
* * *	* *
Delete: Coast Artillery, Reference Data.....	FM 4-155
* * *	* *
Delete: Obstacle Technique.....	FM 5-30
* * *	* *
Delete: Field Artillery, Reference Data.....	FM 6-130
Medical Department, Reference Data.....	FM 8-55
Signal Corps, Reference Data.....	TM 11-462
Delete: Armored Force Field Manual, Tactics and Technique.....	FM 17-10
* * *	* *
Delete: Soldier's Handbook.....	FM-21-100
* * *	* *

[AG 300.7 (11 Jan 45)]

BY ORDER OF THE SECRETARY OF WAR:

OFFICIAL:

J. A. ULIO

Major General

The Adjutant General

G. C. MARSHALL

Chief of Staff

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Sch (50), Engr Sch (5000), Inf Sch (10,000),
Comd & Gen Staff Sch (2000), FA Sch (5000);
USMA (800); ROTC (1); RTC (800); UTC
(800); AAF Repl C (800); A (10); CHQ (10);
D (5); B (5); R (10); SBn (10); Bn (5);
C (10); AF (5); W (5); G (10); S (10)

For explanation of symbols, see FM 21-6.

BASIC FIELD MANUAL

CONVENTIONAL SIGNS, MILITARY SYMBOLS, AND ABBREVIATIONS

CHANGES }
No. 3 }

WAR DEPARTMENT
Washington 25, D. C., 28 February 1945

FM 21-30, 15 October 1943, is changed as follows:

Part IV (Added) Photo Interpretation Symbols

Chapter 11 List of Photo Interpretation Symbols

31. GENERAL. The symbols listed in this chapter are prescribed for use in photographic interpretations. They have been approved for joint use of the Army and Navy. These symbols are used in the annotation of aerial photographs and the preparation of overlays, reports, terrain models, and sketches from aerial photographic interpretation information.

32. ADDITIONAL SYMBOLS. When symbols listed herein or combinations thereof do not give complete information, supplementary notations should be added. In special cases where no symbols can be found that apply, improvised symbols may be used provided they are explained in the legend and do not conflict with authorized symbols.

33. SIZE OF SYMBOLS. The size of photo interpretation symbols shall be consistent with the scale of the finished material.

34. DIRECTIONS FOR ANNOTATION.

a. Location of weapon and emplacement symbols.

The "gun" axis of weapon and emplacement symbols indicates their direction of fire and shall be considered as the top of the symbol.



Where possible, the center of the base of the symbol is the exact location of the indicated weapon, or emplacement.



Where the scale of a photograph is such that one symbol is used to denote a battery position containing several weapons, the symbol will encompass the entire area concerned and will have a numerical indication of the number of weapons involved.



In some instances, the density of defenses will necessitate a "pointer" line being drawn from the symbol to the exact location of the indicated weapon.



Certain symbols designate areas rather than pin points—in which case they indicate the boundaries concerned.



Combinations of symbols are encouraged in order to keep written annotations to a minimum.



b. Material index.

If the type of material utilized in the construction of an emplacement or obstacle can be determined, the appropriate "MATERIAL INDEX" will be added beneath the symbol.

- C — CONCRETE
- M — MASONRY
- S — STEEL
- L — LOG
- W — WOOD
- E — EARTH

c. Annotation colors.

- Cultural **BLACK**
- Plant growth **GREEN**
- Topography **BROWN**
- Hydrography **BLUE**
- Defenses **RED**
- d. Unidentified **(7)**

35. WEAPONS.

a. General.

Caliber (numeral on left side of appropriate gun symbol indicates caliber of piece in millimeters)




Battery, with number of guns (numeral on right side of appropriate gun symbol indicates number of pieces in battery)



Emplaced weapons—See paragraph 32.


Weapon or emplacement, destroyed





Weapon, dummy..... 


Weapon, doubtful.... ?


b. Antiaircraft.


Heavy (75-mm. and over)..... 


Automatic (13.2-40-mm.)..... 


Twin mount..... 


Triple mount..... 

Machine gun (6.5-7.7-mm.)..... 

Dual-purpose..... 


Self-propelled (heavy). 


Railway (heavy)..... 


Ship..... 


Tower..... 

c. Antitank.


Heavy (over 75-mm.). 


Medium (50-75-mm.). 


Light (less than 50-mm.)..... 


Self-propelled (heavy). 


d. Coast defense.


Superheavy (over 240-mm.)..... 


Heavy (over 175-mm.). 


Medium (105-175-mm.)..... 

Light (less than 105-mm.)..... 


Howitzer, superheavy (over 240-mm.)..... 


Howitzer, heavy (over 175-mm.)..... 


Howitzer, medium (120-175-mm.)..... 


Howitzer, light (less than 120-mm.)..... 


e. Field artillery.


Heavy (over 175-mm.). 


Medium (105-175-mm.)..... 

Light (less than 105-mm.)..... 


Howitzer, heavy (over 175-mm.)..... 


Howitzer, medium (120-175-mm.)..... 

Howitzer, light (less than 120-mm.)..... 


Self-propelled (heavy). 

f. Railway artillery.


Railway gun..... 

Railway gun on turntable..... 


g. Infantry weapons.


Machine gun, heavy... 


Machine gun, light... 

Machine gun, field of fire... 


Mortar (annotate size) . 


Mortar, barrage (annotate size) . 

Rocket projector, single (annotate size) . 

Rocket projector, multiple (annotate size) . 

h. Vehicles.


Vehicle, animal drawn. 

Vehicle, armored 


Vehicle, motor 

36. EMPLACEMENTS.

If the type of material utilized in the construction of the emplacement can be determined, the appropriate "MATERIAL INDEX" will be added beneath the symbol.


Emplacement, unoccupied 


Emplacement, covered 


Example—4-gun, 240-mm. heavy coast defense battery in covered concrete emplacements 


Fire control center 

Fire control, radar 


Fire control, visual 

Foxhole (if in quantity, outline area and annotate: Foxholes) 

Observation post 

Observation post, artillery 


Observation tower 


Pillbox (axis of gun indicates direction of fire. Show size of gun if known.) 

Bunker 


Casemate or blockhouse 


Sniper post 

Personnel shelter, above ground 


Personnel shelter, below ground 


Strong point 

Trench, communication 

Trench (with firing bays) 


Trench, fire 


Weapons pit (infantry) 

Wire, concertina, single 

37. OBSTACLES.


If the type of material utilized in the construction of the obstacle can be determined, the appropriate "MATERIAL INDEX" will be added beneath the symbol.

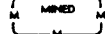
Wire, concertina, double 

Wire, single-fence 


Wire, double-fence 

Mines 


Mine field gap 


Mined area, land 


a. Obstacles, land.


Antitank barrier 


Antitank ditch 


Antitank ditch, covered 


Barrage balloon 


Demolition charge 


Obstacles, fixed 


Obstacles, movable 

Stakes (plot position) 


Road block, demolition 


Road block, partial 


Road block, total 


Wire, broad area (base of symbol indicates location of first strand. Depth of zone, in feet, is indicated by numerals) 


b. Obstacles, underwater.

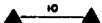
Mined area, water 

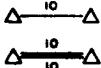
Obstacle, large fixed 

Tetrahedron, ramp, or hedgehog, fixed 

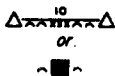
Tetrahedron, ramp, or hedgehog, movable 

Stakes, piles, or rails (plotted by position) 

Tetrahedron, ramp or hedgehog, fixed (in line—numeral indicates number of tetrahedra, etc., between precisely located points) 

Tetrahedron, ramp or hedgehog, movable (in multiple rows, show by line) 

When used with wire or mines, use proper symbols, use "MATERIAL INDEX" where known.....

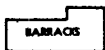


Stores, area (area of stores to be included in a solid ring)



38. MILITARY AREAS.

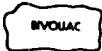
Barracks area.....



Ammunition



Bivouac area



Buried



Command post.....



Coal.....



Command post area.....



Engineer



Military occupation.....



Chemical



New construction..



Loose



Park, armored (outline area, indicate type where possible, and show numerically the number of vehicles).....



Lumber.....



Park, engineer equipment (outline area and indicate type where possible)



Oil or gas.....



Park, motor (outline area, indicate type where possible, and show numerically the number of vehicles)



Water



Park, ordnance (outline area, indicate type where possible, and show numerically the number of vehicles)



Tent, area.....



Tent.....



39. TERRAIN FEATURES.


















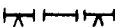

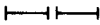
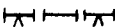

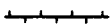
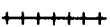
a. Installations (cultural).

Blast wall (line conforms to shape of installation protected)



Retaining wall.....



Building.....		Road, primary (show number of lanes in figures. Minimum width of 1 lane is 8 feet)..... <u> 2 </u>
Building, buried ...		Road, secondary (show number of lanes in figures. Minimum width of 1 lane is 8 feet)..... <u> 2 </u>
Building, dug-in ...		Path or trail..... <u> TRAIL </u>
Building, revetted ..		Bridge, indicate width in feet and construction material by "MATERIAL INDEX"..... <u> 14 </u>
Building, under construction.....		Bridge, out..... <u> 14 </u>
Cable.....	<u> CABLE </u>	Bridge, ponton..... 
Cable, buried.....	<u> CABLE </u>	School..... 
Cemetery.....		Stone fence..... 
Church.....		Tank, buried..... 
Excavation.....		Tank farm..... 
Hospital.....		Tank, fuel..... 
Pipe line, buried ...		Tank, gasometer ... 
Pipe line, overhead.		Tank, water..... 
Pipe line, surface ...		
Railroad, double-track.....		
Railroad, electrified.		
Railroad, narrow gauge.....		
Railroad, single-track.....		

For engineer classification of roads and bridges, see paragraphs 25a, b, and c, pp. 47 through 49.

Tower, unspecified
or obstruction . . .



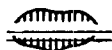
Sand dunes



Tower, water



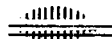
Cut



Underground
entrance



Fill



Well derrick



Lake



Windmill



Lake, dry



Canal



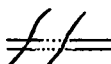
River or stream



Culvert



Ford



Dam



Direction of flow



Drainage ditch



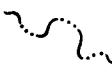
Stream, bed



Flood gate



Stream,
intermittent



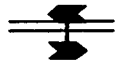
Lock



Falls or rapids



Lock, double



Well



b. Topography.

Cliff



Spring



Cliff, rocky



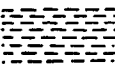
Tidal flats



Slope



Inundated (over-
flowed land)



c. Vegetation.

Area of specific vegetative type (on photographs)



Brush



Coniferous forest ..



Deciduous forest ...



Grassland



Hedges



Mangrove



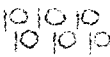
Orchard or plantation



Palms



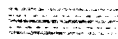
Rain forest or jungle



Rice field



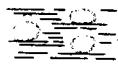
Sugarcane



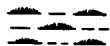
Stump land



Swamp forest



Swamp or marsh ...



Tree



NOTE.—Areas containing the above, or other, types of vegetation should be outlined and annotated with the type indicated.

40. ELECTRONICS.

Direction finder



Power station



Power transmission line (obstruction)



Power transmission line (not obstruction)



Radar



Radio navigational aid ..



Radio station



Radio transmitter






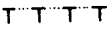




Searchlight



Searchlight, radar-controlled






Sound locator.....	
Tower, control.....	
Tower, light.....	
Tower, radio.....	
Tower, signal.....	
Telephone or telegraph line ...	
Transformer station...	
Weather station.....	




41. NAVAL AND HYDROGRAPHY.




a. Naval.

ANCHORAGES:

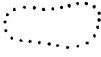











Ship.....	
Ship, emergency.....	
Ship with complete facilities	


BUOYS AND LIGHTS:

Buoy, bell, etc.	
Buoy, lighted.....	
Buoy, unspecified.....	

Lightship.....	
Light, unspecified.....	
Crane.....	

DANGERS:

Danger, area.....	
Rock, awash.....	
Rock, sunk.....	
Wreck, awash.....	
Wreck, sunk.....	
Dredge.....	
Drydock.....	
Drydock, floating..	
Marine railway....	
Net, submarine....	
Net, torpedo.....	
VESSELS:	
Merchant (indicate type by "JMST" code designation. See PI Handbook).....	

Naval (indicate type by standard U. S. Navy designation. See PI handbook) 



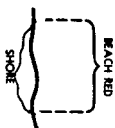
b. Beach studies and depth determination.

Mud or silt Land



Pebble Land

BEACHES:



Location and extent

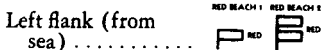


Bed rock Land

Gradient (slope) %



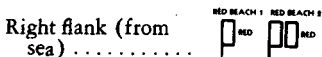
Center



Left flank (from sea)



Sand Land



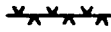
Right flank (from sea)

BEACH MATERIAL:

Shingle Land



Block or boulder Land

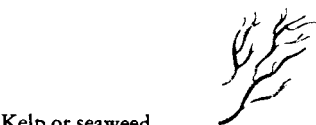
Sea wall (see also "OBSTACLES, UNDER-WATER") 




Gravel or cobble Land

c. Offshore.

BOTTOM MATERIAL (use same designations as for "BEACH MATERIAL"):



Kelp or seaweed

Block or boulder 

Shingle 

Gravel or cobble . . .		Flood	
Kelp or seaweed . . .		General	

d. Wave and surf symbols for depth determination.


Mud		Wave length	L
Pebble		Distance of outermost breakers from datum line	L _b
Rock		Wave period	P
Sand		Wave velocity	C

REEFS, BARS, AND SHOALS:

Edge of coral reef . .		Wave height (trough to crest)	H
Edge of rock reef . .		Angle of wave crest with bottom contours	α (alpha)
Edge of sand bar . .		Angle of breakers with beach	D
Sand bar, exposed (above datum) . .		Velocity of longshore current in knots	C _L
Sand bar, unexposed (below datum) . .		Subscript "o" reflects to values in deep water	^o Example - C _o
Coral head, area . .		High water datum	<u>HIGH HIGH WATER</u>
Coral head, isolated . .		Low water datum	<u>LOW LOW WATER</u>
		Soundings in fathoms	⑥
		Soundings in feet	⑥

TIDES AND CURRENTS:

Ebb, KN—Speed of current in knots . .		Contours, hydrographic	⋯③⋯
---------------------------------------	--	----------------------------------	-----

Critical line special purposes 

WAVE AND SURF CONDITIONS:


Breakers 


Surf line 

NOTE.—Additional symbols and abbreviations for hydrographic designations should conform to those published in H. O. No. 8.


42. AIR FIELDS AND SEAPLANE BASES.


Aircraft 


Aircraft, damaged 


Aircraft, dummy 


Aircraft, revetment 


Aircraft, revetment under construction 


Aircraft, shelter 


Airfield, complete facilities 

Airfield, refueling facilities 

Landing ground, no facilities 


Seaplane base, complete facilities 


Seaplane base, refueling facilities 


Seaplane anchorage, no facilities 


Seaplane, ramp 


43. DAMAGE ASSESSMENT.
a. Bomb plot.


Single bomb certain, with crater 

Single bomb certain, no crater 


Single bomb probable, no crater 


One or more bombs certain in vicinity of arrowhead 

One or more bombs probable in vicinity of arrowhead 

Bomb burst, area of fragmentation 

Fire location 
















Cloud obscured 

Smoke obscured 

Line of flight 


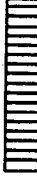





Nadir point 

b. Damage assessment : For overlays.

Agent	Structural	Good Cover Only Superficial	Roof Disturbance	Medium and Poor Cover and 1st Phase
H. E. alone.....				
H. E. plus fire.....				
Fire alone.....				
Doubtful.....				
Prior damage from earlier raids.....				
				

{ Damage not repaired.....
 { Damage repaired.....

c. Repair studies : For overlays.

Construction completed.....	
	
	
	
	
	
	

{ New buildings.....
 { Superficial repairs.....
 { Structural repairs.....
 { Repair of damaged areas.....
 { New buildings.....
 { Damage cleared (possible preparation for repairs) ..
 { also cleared or no action

d. Damage assessment : For photographs (color index).

NOTE.—Symbols are similar to those used on overlays with differentiation by color.

H. E. alone.....	GREEN
H. E. plus fire.....	PURPLE
Fire alone.....	RED
Doubtful.....	YELLOW

e. Repair studies : For photographs (color index).

NOTE.—Symbols: Outline for clearance completed, cross hatch for repairs in progress, solid for repairs completed.

To structural damage.....	PURPLE
To superficial damage.....	GREEN
To roof disturbance.....	YELLOW
First aid repairs.....	BLUE
New buildings.....	RED
Condition of area or site (clearance or no action)	BLACK

[AG 300.7 (14 Feb 45)]

BY ORDER OF THE SECRETARY OF WAR:

OFFICIAL:

J. A. ULIO
Major General
The Adjutant General

G. C. MARSHALL
Chief of Staff

This manual supersedes FM 21-30, 26 November 1941, including C 1, 9 May 1942 and C 2, 27 July 1942.

PART I

GENERAL MAPPING

CHAPTER 1 · GENERAL

1. PURPOSE. This manual gives in convenient form the abbreviations and general symbols which have been authorized for military use. It contains technical symbols and instructions for the map maker, and military symbols for the use of those in the military service. Persons engaged in the preparation of maps should also be guided by AR 300-15, TM 5-230, and Bulletin 788, Topographical Instructions of the United States Geological Survey. Those whose duties require them to read foreign topographic and military maps should consult FM 30-22.

Symbols other than those shown herein may be used provided they do not conflict with any authorized symbols and are explained in a legend.

2. SCOPE. Part I of this manual deals with general topographic, hydrographic, and air navigational symbols, and abbreviations prescribed for use on all United States maps. Part II contains symbols of a military nature authorized by the War Department. Part III gives authorized military abbreviations.

3. SIZE. a. In general, topographical symbols resemble the objects which they represent. The symbols vary in

size with the scale of the map. On small-scale maps, the symbols are reduced to their most elementary form and do not conform to scale. As the scale is increased, the symbols assume more nearly the shape and scaled size of the object represented.

b. The symbols in this book are generally of a size suitable for use on a map of scale 1:62,500, unless otherwise noted.

4. COLOR. The symbols are shown in appropriate color for a four-color map. When less than four colors are used, the colors in the symbols shown in chapters 2, 3, and 5 which are not used will be executed in black ink.

5. LETTERING. Civil divisions are indicated by **VERTICAL ROMAN** type; natural water features by *SLANT ROMAN* type, or italic; natural land features by **VERTICAL GOTHIC** type; and works of man by *SLANT GOTHIC* type. On hastily prepared military maps, the lettering may vary considerably from these standards.

6. MARGINAL DATA. The data shown on chart 1 are given, where practicable, in the margins of all maps, photomaps, or aerial photographs, and usually in the places indicated by the encircled figures. On military maps, overlays, and field sketches, only essential information concerning the kind of map, orientation, date of preparation, source, and scale are shown, and then not necessarily in the margins. For detailed information on marking aerial photographs see FM 30-21.

CHAPTER 2

PRIMARY TOPOGRAPHIC SYMBOLS

7. GENERAL. This chapter gives the symbols used on United States maps for drainage, relief, and land classification. For topographic abbreviations, see chapter 6.

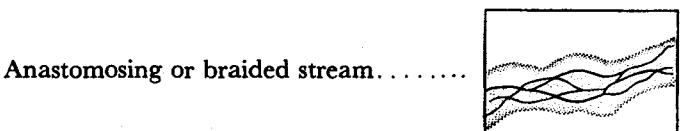
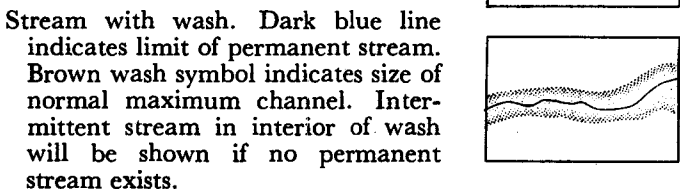
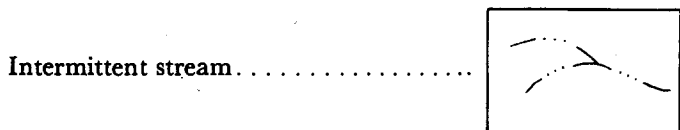
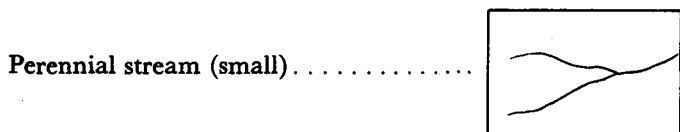
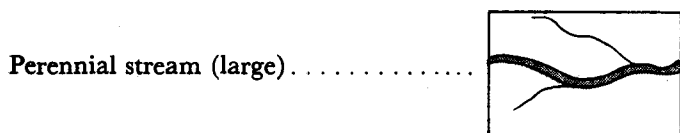


Chart 2.—Drainage.


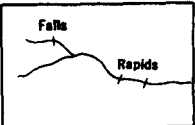

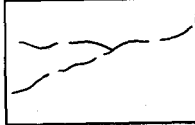



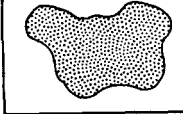
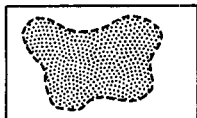
- Falls and rapids—large scale map..... 
- Falls and rapids—small scale map..... 
- Waterhole..... 
- Probable drainage, unsurveyed..... 
- Lakes and ponds: (permanent)..... 
- Lakes and ponds: (intermittent)..... 
- Lake or pond (dry bed) and claypans
(with appropriate text)..... 
- Lakes and ponds (salt-permanent)..... 

Chart 2.—Drainage—Continued.

Lakes and ponds (salt-intermittent)



Lakes and ponds (salt-dry) (saltpans)
(with appropriate text)



Spring



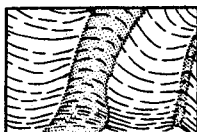
Wells and water tanks



Glaciers, form lines showing flow



Glacial surface moraine



Snow field

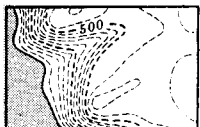


Chart 2.—Drainage—Continued.

Contours (blue if under water)



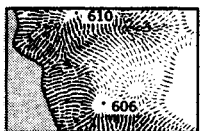
Contours (approximate only)



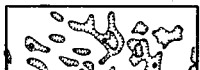
Form lines (no definite interval)



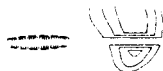
Hachures



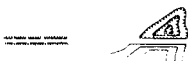
Depression contours



Cuts



Fills (Where high railroad or highway embankments occur, the use of hachures to represent the bank or grade is recommended instead of extensive use of depression contours covering large areas of the sheet.)



Mine dump (ore)

Tailings



Chart 3.—Relief.

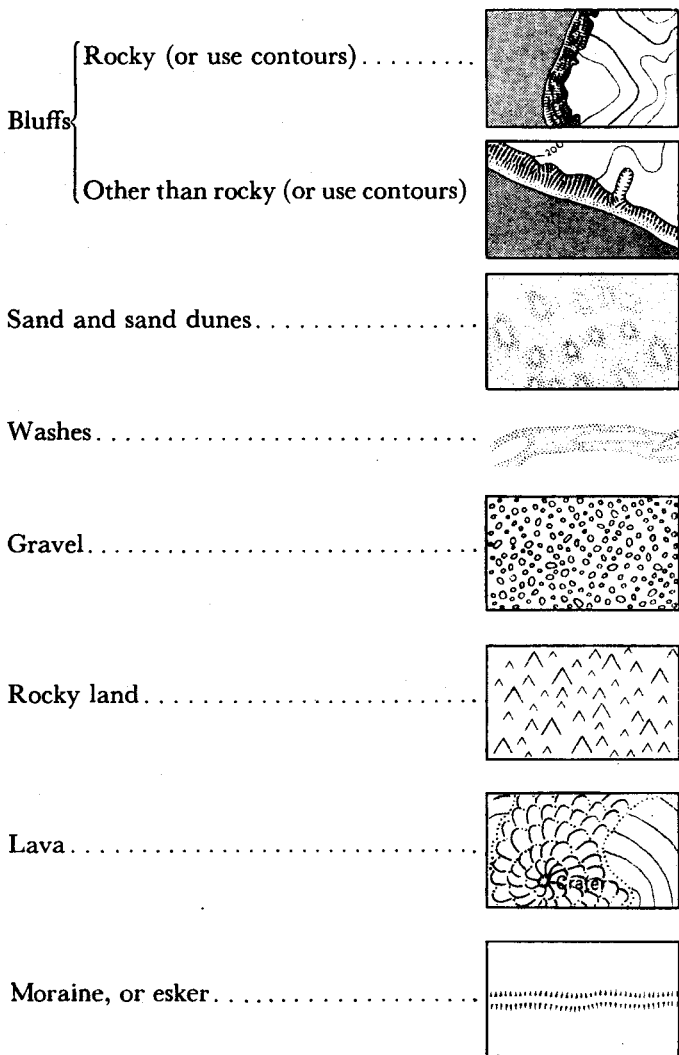
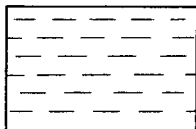


Chart 3.—Relief—Continued.

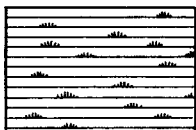
Overflowed land



Marsh (if peat bog add appropriate text)



Salt marsh



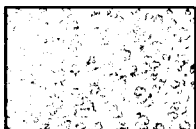
Cypress swamp



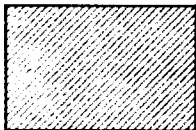
Woodland (or as shown below)



Woodland (or broadleaved trees)



Logged-off or burned-off area



Dense woods or jungle growth

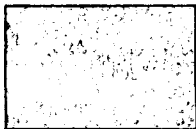
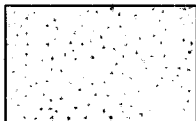
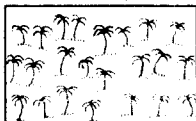


Chart 4.—Land classification.

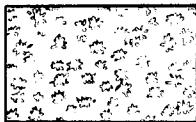
Pine (or narrow leaved trees)



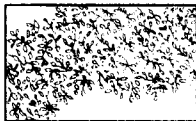
Palm



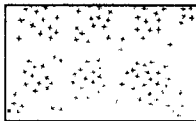
Palmetto



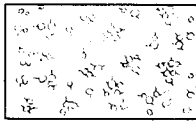
Mangrove



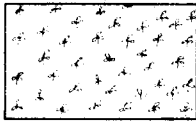
Bamboo



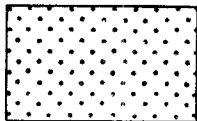
Cactus



Banana



Orchard



OR

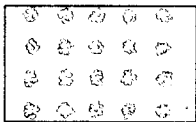
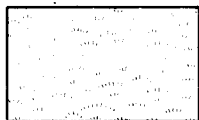


Chart 4.—Land classification—Continued.

Vineyard



Grassland in general



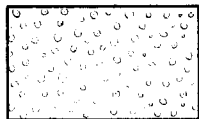
Tall tropical grass



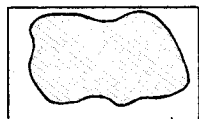
Cultivated fields in general (Scale 1:31,680 and larger)



Cotton



Rice field



Sugarcane



Corn

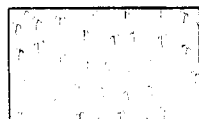

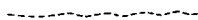


Chart 4.—Land classification—Continued.

CHAPTER 3

HYDROGRAPHY

8. GENERAL. This chapter gives hydrographic and aids to navigation symbols used on United States maps. These symbols are approved by the United States Coast and Geodetic Survey. For hydrographic abbreviations, see chapter 6.

Shore lines { Surveyed 
 { Unsurveyed 

Shores (high and low water lines and areas between)

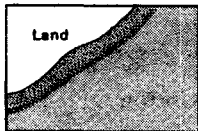
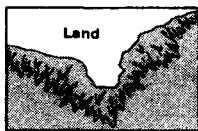
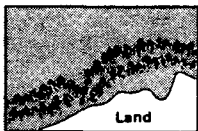

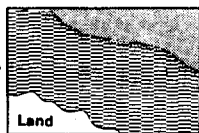
In general	
Rocky ledges	
Coral reefs	
Gravel and rocks	

Chart 5.—Hydrography, dangers, obstructions.

Shores (high and low water lines and areas between)—Con.

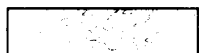
Mud



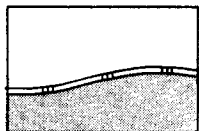
Tidal flats



Kelp or eel grass



Ice limits-shelf ice



Rock under water +

Rock awash (at any stage of the tide) *

Breakers along shore



Fishing stakes



Fish weir



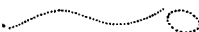
Salt evaporator



Overfalls and tide rips



Limiting danger line



Whirlpools and eddies



Chart 5.—Hydrography, dangers, obstructions—Continued.

Wreck (any portion of the hull or superstructure above low water)		
Sunken wreck (dangerous to surface navigation)		
Sunken wreck (not dangerous to surface navigation nor those over which the depth exceeds 10 fathoms)		
Foul ground		
Number of sunken wrecks		
Current, not tidal, velocity 2 knots		
(Special usage)		
Tidal currents	Flood, 1½ knots	
	Ebb, 1 knot	
	Flood, second hour	
	Ebb, third hour	
No bottom at 50 fathoms		
Depth curves:		
1-fathom or 6-foot line		
2-fathom or 12-foot line		
3-fathom or 18-foot line		
4-fathom line		
5-fathom line		
6-fathom line		
10-fathom line		
20-fathom line		
30-fathom line		
40-fathom line		
50-fathom line		
100-fathom line		

Chart 5.—Hydrography, dangers, obstructions—Continued.

Lifesaving station (in general)	◆	L.S.S.																						
Lifesaving station (Coast Guard)	◆	C.G. 165																						
Lighthouse	★																							
Lighthouse on small-scale chart	•																							
(light sectors shown by dotted lines)																								
Light vessels showing number of mast lights	⚓	⚓																						
Beacons (sectors shown by dotted lines)	{ <table border="0" style="display: inline-table; vertical-align: middle;"> <tr> <td>Lighted</td> <td>★</td> </tr> <tr> <td>Not lighted (sample of distinctive top marks)</td> <td>▲ ⚓ ⚓ ⚓ ⚓ ⚓</td> </tr> </table>	Lighted	★	Not lighted (sample of distinctive top marks)	▲ ⚓ ⚓ ⚓ ⚓ ⚓																			
		Lighted	★																					
Not lighted (sample of distinctive top marks)	▲ ⚓ ⚓ ⚓ ⚓ ⚓																							
Buoys	{ <table border="0" style="display: inline-table; vertical-align: middle;"> <tr> <td>Buoy of any kind (or red buoy)</td> <td>◇</td> </tr> <tr> <td>Black</td> <td>◆</td> </tr> <tr> <td>Striped horizontally (in general)</td> <td>◇</td> </tr> <tr> <td>Striped horizontally (red and black)</td> <td>◆</td> </tr> <tr> <td>Striped vertically</td> <td>◇</td> </tr> <tr> <td>Checkered</td> <td>◆</td> </tr> <tr> <td>Perch and square</td> <td>◇</td> </tr> <tr> <td>Perch and ball</td> <td>◇</td> </tr> <tr> <td>Whistling (or use first six symbols with word "whistling")</td> <td>◇</td> </tr> <tr> <td>Bell (or use first six symbols with word "bell")</td> <td>◇</td> </tr> <tr> <td>Lighted</td> <td>◆</td> </tr> </table>	Buoy of any kind (or red buoy)	◇	Black	◆	Striped horizontally (in general)	◇	Striped horizontally (red and black)	◆	Striped vertically	◇	Checkered	◆	Perch and square	◇	Perch and ball	◇	Whistling (or use first six symbols with word "whistling")	◇	Bell (or use first six symbols with word "bell")	◇	Lighted	◆	
		Buoy of any kind (or red buoy)	◇																					
		Black	◆																					
		Striped horizontally (in general)	◇																					
		Striped horizontally (red and black)	◆																					
		Striped vertically	◇																					
		Checkered	◆																					
		Perch and square	◇																					
		Perch and ball	◇																					
		Whistling (or use first six symbols with word "whistling")	◇																					
		Bell (or use first six symbols with word "bell")	◇																					
Lighted	◆																							
		Top marks used with any buoy symbols																						

Chart 6.—Aids to navigation.




Radio stationR.S.⊙
Radio direction-finder station (radio compass station) R.C.⊙	
Radio towerR.T.⊙
Radio beaconR.Bn.⊙
Pilot station	⊙PIL. STA.
Weather Bureau signal station	⊙W. B. SIG. STA.
Water gage	†
Anchorage {	↓
Mooring	⊖
Range or bearing line	-----
Track line	—————
Drydock	
Floating drydock	
Patent slip	
Leader cable	=====
Dolphin	⊕
Anchorage prohibited	<div style="border: 1px dashed black; padding: 2px; display: inline-block;">Anchorage prohibited</div>

Chart 6.—Aids to navigation—Continued.

CHAPTER 4

AERONAUTICAL CHART SYMBOLS

(To be reproduced in magenta)

9. GENERAL. The conventional signs for use on aeronautical charts differ from those used on topographic maps as follows:

a. All symbols are larger and more striking to the eye.

b. Those features on the ground which are easily identified from high altitudes are emphasized on aeronautical charts. Other features are subordinated or omitted entirely.


Airports:

Unclassified 

Military field 


Joint military-civil 


Commercial or municipal 


Flight strip (landing area adjacent to highway; symbol indicates direction of runway) 

Emergency landing field 


Seaplane ports:


Base with complete facilities 


Anchorage with limited facilities 

Protected anchorage with no facilities 

Beacons:

Rotating, with flashing code beacon 

Rotating, with course lights and code 

Flashing code 




Flashing 

Chart 7.—Aeronautical chart symbols.


Obstruction (center of symbol marks location) Δ 205

Prominent elevation (numerals indicate height in feet) 862 

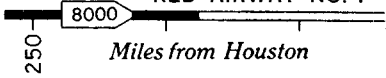
Mooring mast 

Night lighting facilities (place under field name) LF


Marine navigation light (with characteristic) Gp Fl \bullet

Lines of equal magnetic declination  22° W


Prominent transmission line 


Civil airways:
With flight levels indicated  RED AIRWAY NO. 1
250 8000 Miles from Houston


Controlled 


Uncontrolled 

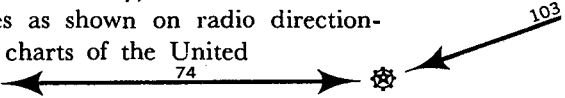
Air navigation hazards (United States only):

Danger area  DANGER AREA

Caution area  CAUTION AREA

Prohibited area  AIRSPACE RESERVATION

Air defense zone or vital defense area (United States only)  EASTERN AIR

Air routes as shown on radio direction-finding charts of the United States:  74 103

Radio:

Radio fan marker



WINSTON
— —

Radio marker beacon (without voice) . . .

359H ••••
KNOXVILLE
RADIO 278

Radio marker beacon (with voice)



379 AND 209 I ••
NEW FLORENCE
RADIO 278

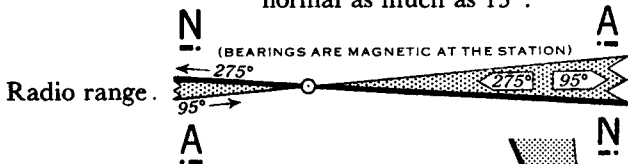
Nondirectional radio beacon (type H)



OTTOWA
278 YJ — — — —

WARNING

Warning note Magnetic variation in this area at ground elevation differs from normal as much as 15°.



Radio range .

Radio range note (at neat line)

To Big Springs

326 BZ — — ••••

Radio range (without voice) ○ ←

206 AP • — — •

Radio range (with voice) ○ ←

391 LN • — — •
LEBO RADIO 278

Radio range (simultaneous) ○ ←

WHITEHALL RADIO
284 WW : — — =

Control zone of intersection

CONTROL ZONE
OF INTERSECTION

Airport control tower

BIGGS FIELD
TOWER 396

Radio direction finder station

RC

ALGOA KFOB

Chart 7.—Aeronautical chart symbols—Continued.

Radio—Continued.

Radio beacon	
Radio communication station.	
Radio communication station (with radio beacon facility).	
Radio communication station (with direction-finder facility)	
Radio broadcasting station	
Railroads (if abandoned, label):	
Single track	
Two or more tracks	
Interurban (electric)	
Highways:	
Superhighway (dual or four lanes and more)	
Main road	
Secondary road	
Trails	
City or large town	
Town or village	
Landmark	
Mine	
Lookout tower	
Danger curve	
Coast guard station	
Dam or dam with lock	
Race track	

Chart 7.—Aeronautical chart symbols—Continued.

CHAPTER 5

WORKS OF MAN

10. GENERAL. This chapter gives the symbols used on maps to indicate the works of man.












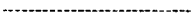





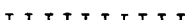


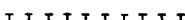

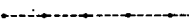
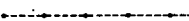




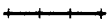

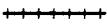

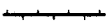
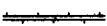
	Larger than 1:200,000	1:200,000 and smaller
Primary highways		
Secondary highways		
Other surfaced roads		
Dirt roads		
(Descriptions of the surface and widths shall be indicated, if known, for each road classification. See paragraph 25 and chart 19.)		
Trails		
Poor pack trail or footpath		
National or U. S. route.		Provincial or State route. 
		
(Date of road information shown in margin on all maps.)		
Telegraph and telephone lines	<div style="display: inline-block; vertical-align: middle; font-size: 2em; margin-right: 5px;">{</div> <div style="display: inline-block; vertical-align: middle;"> On ground or poles  Underground  Submarine  </div>	<div style="display: inline-block; vertical-align: middle; font-size: 2em; margin-right: 5px;">{</div> <div style="display: inline-block; vertical-align: middle;">    </div>
Electric power transmission line		
Tunnel (railroad or road)		
Railroad station of any kind		

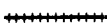
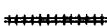
Chart 8.—Roads, railroads, wire communication.

Railroads: Larger than 1:200,000



Wide gage { Single track  ELECTRIFIED
 { Double track  ELECTRIFIED

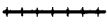
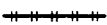
Normal gage { Single track  ELECTRIFIED
 { Double track  ELECTRIFIED

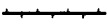
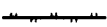
Narrow gage { Single track  ELECTRIFIED
 { Double track  ELECTRIFIED


Electric passenger only { Single track 
 { Double track 

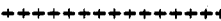
1:200,000 and smaller

Wide gage { Single track  ELECTRIFIED
 { Double track  ELECTRIFIED

Normal gage { Single track  ELECTRIFIED
 { Double track  ELECTRIFIED


Narrow gage { Single track  ELECTRIFIED
 { Double track  ELECTRIFIED

RR in road 1:250,000 and smaller. 

Abandoned RR 

NOTE.—Railroads under construction may be shown either broken or solid, with appropriate notation.

Railroad crossings on maps larger than 1:250,000

Grade, RR above, RR beneath . . . 


General crossing symbol for maps 1:250,000 and smaller 

Chart 8.—Roads, railroads, wire communication—Continued.

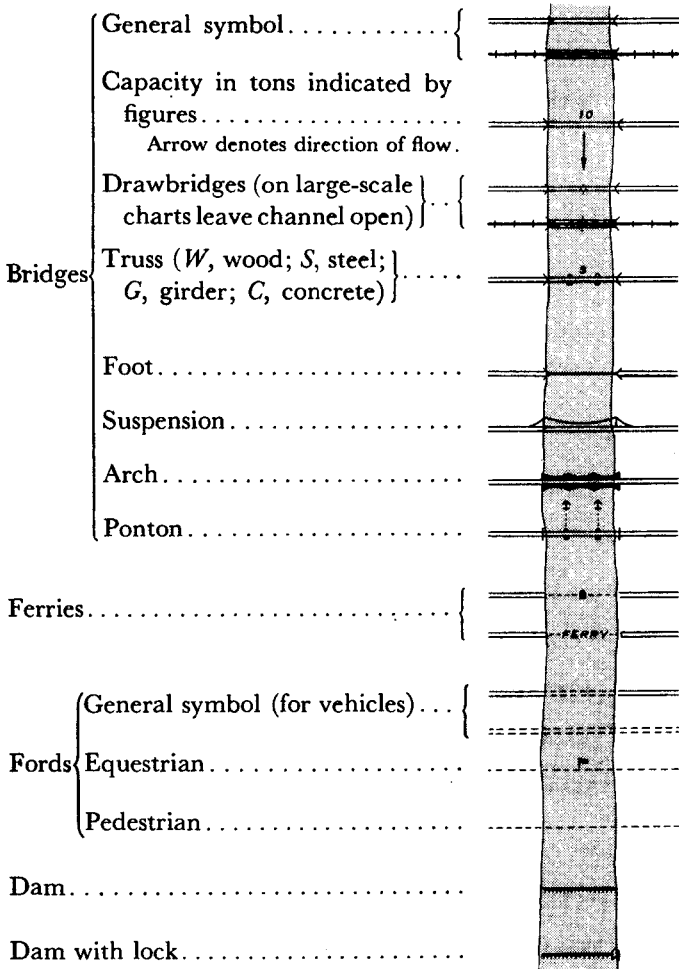


Chart 9.—River works.

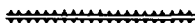
Breakwater, dock and jetties



Earth wall, or levee



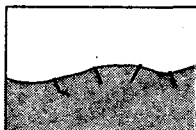
Levee (optional for War Department)




Revetment (optional for War Department)



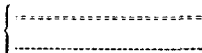
Dikes





River gage 

Canal, ditch, or open aqueduct { 

Canal, abandoned { 

Buried aqueduct or water pipe { 

Aqueduct or canal in tunnel 

Canal lock (point upstream) 


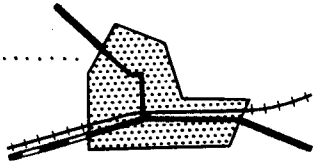
Canal lock (large scale) 

Chart 9.—River works—Continued.


1:200,000 and smaller

City, first importance
(actual shape)



City, second importance
(actual shape)



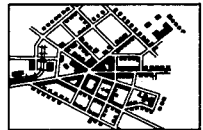
City, third importance 

Town, large 



Town, small 


Village 



Sample combination showing city, town,
or village, scales larger than 1:200,000.



NOTE.—Large urban areas may be shown
in gray tint with important buildings and street system in black.

Buildings in general  


Hospital  or 

Schoolhouse or university  or 

Windmill 





Ruins 

Church or place of worship 

Fort 

Cliff dwellings 

Chart 10.—Buildings, urban areas.

Cemetery (cross symbol to be used in U. S. only)	 or 	
Mine or quarry of any kind (or open cut)	x	
Prospect	x	
Shaft	o	
Mine tunnel {	Opening	^
	Showing direction	—
Oil or gas wells		
Tanks		

NOTE.—Scales larger than 1:50,000, show individual wells and tanks. Scales 1:50,000 and larger than 1:200,000, show well and tank farms with three or four symbols. Scales 1:200,000 and smaller, omit wells and tanks. No pipe lines are shown on maps of any scale.


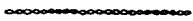
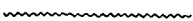



Coke ovens		
Fences {	Fence of any kind (or board fence)	-----
	Stone	
	Worm	
	Wire	 <i>Barbed</i>  <i>Smooth</i>
	Hedge	

Chart 11.—Miscellaneous.

Map boundaries

Foreign:

International	
Intercolonial	
State or province	
County or district	

Note.—Use of red screen is optional.

Domestic:

National or state	
County line	
Civil township, district or precinct	
Reservation line	
(for Military, add tint)	
Land-grant line	
Metropolitan area	

Cemetery, small park, etc.

U. S. township, section, and quarter-section lines (any one for township line alone, any two for township and section lines) }

Located U. S. township and section corners. . . .

Boundary monument

Triangulation point or primary traverse station.

Permanent bench mark (and elevation)

BM
X
1232

Precise bench mark

PBM
X
1232

Intermediate bench mark (and elevation)

X 1232

U. S. mineral monument

▲

Observation spot (astronomical position)

⊕

Any located station or object (with explanatory note)

○

Chart 12.—Boundaries, marks, and monuments.

CHAPTER 6
GENERAL MAPPING ABBREVIATIONS
SECTION 1
TOPOGRAPHIC ABBREVIATIONS

11. GENERAL. The abbreviations listed below are prescribed for use on all United States maps. Besides those listed in this section, those abbreviations listed in section II and also in chapter 10 are used when appropriate:

A.....	arch or arroyo
abut.....	abutment
b.....	brick
bot.....	bottom
Br.....	branch
br.....	bridge
C.....	cape
cem.....	cemetery
con.....	concrete
cov.....	covered
Cr.....	creek
cul.....	culvert
DS.....	drug store
E.....	east
Est.....	estuary
f.....	fordable
Ft.....	fort
gir.....	girder
i.....	iron

I	island
Jc	junction
kp	king-post
L	lake
Lat	latitude
Ldg	landing
LSS	lifesaving station
LH	lighthouse
Long	longitude
Mt	mountain
Mts	mountains
N	north
nf	not fordable
p	pier
pk	plank
PO	post office
Pt	point
qp	queen-post
R	river
RH	roundhouse
RR	railroad
2d	second
S	south
s	steel
Sch	schoolhouse
Sta	station
St	stone
str	stream
TG	tollgate
3d	third
Tres	trestle
tr	truss
WT	water tank
WW	waterworks
W	west
w	wood

SECTION II

ABBREVIATIONS USED WITH HYDROGRAPHIC SYMBOLS

12. GENERAL. The following abbreviations, for use with hydrographic symbols, are authorized for all United States nautical maps and charts. These abbreviations are approved by the Federal Board of Surveys and Maps and are used by the United States Coast and Geodetic Survey and Hydrographic Office.

13. RELATING TO LIGHTS.

AERO.....	aeronautical
Alt.....	alternating
Bu.....	blue
D.....	destroyed
ev.....	every
Exper.....	experimental
F.....	fixed
F Gp FL.....	fixed and group flashing
F FL.....	fixed and flashing
FL.....	flashing
G.....	green
Gp.....	group
Gp FL.....	group flashing
Gp Occ.....	group occulting
Hor.....	horizontal
I Qk.....	interrupted quick
Irreg.....	irregular
Lt.....	light
Lt Ho.....	lighthouse
m.....	nautical mile

min.	minutes
OBSC.	obscured
Occ.	occluding
Priv maintd.	private light (maintained by private interests; to be used with caution)
Qk FL.	quick flashing
R.	red; range
REF.	reflector
Rev.	revolving
sec.	seconds
SEC.	sector
S-L.	short-long
Temp.	temporary
(U).	unwatched
VB.	vertical beam
Vert.	vertical
vis.	visible
W.	white

14. RELATING TO FOG SIGNALS.

<i>DFS</i>	distance finding station
<i>FB</i>	fog bell
<i>FD</i>	fog diaphone
<i>FG</i>	fog gong; fog gun
<i>FH</i>	fog reed; fog horn
<i>FN</i>	fog nautophone
<i>FS</i>	fog siren; fog signal station
<i>FT</i>	fog trumpet
<i>FW</i>	fog whistle
<i>SB</i>	submarine fog bell (mechanical)
<i>SFO</i>	submarine fog oscillator

15. RELATING TO DANGERS.

<i>Bk</i>	bank
<i>cov</i>	covers

<i>D</i>	doubtful
<i>ED</i>	existence doubtful
<i>Obstr</i>	obstruction
<i>PA</i>	position approximate
<i>PD</i>	position doubtful
<i>Pos</i>	position
<i>rep</i>	reported
<i>Shl</i>	shoal
<i>uncov</i>	uncovers
<i>Wk</i>	wreck
<i>Wks</i>	wreckage

16. RELATING TO TIDES AND CURRENTS.

<i>HW</i>	high water
<i>HHW</i>	higher high water
<i>LW</i>	low water
<i>LLW</i>	lower low water
<i>MHW</i>	mean high water
<i>MHHW</i>	mean higher high water
<i>MLW</i>	mean low water
<i>MLLW</i>	mean lower low water
<i>MSL</i>	mean sea level
<i>MTL</i>	mean tide level

17. RELATING TO QUALITY OF BOTTOM.

a. Material.

<i>Bld(s)</i>	boulder(s)
<i>Ck</i>	chalk
<i>Cl</i>	clay
<i>Cn</i>	cinders
<i>Co</i>	coral
<i>Co Hd</i>	coral head
<i>Di</i>	diatom
<i>G</i>	gravel
<i>Gl</i>	globigerina
<i>Grs</i>	grass

<i>La</i>	lava
<i>M</i>	mud
<i>Ml</i>	marl
<i>Oys</i>	oysters
<i>Oz</i>	ooze
<i>P</i>	pebbles
<i>Pm</i>	pumice
<i>Rk</i>	rock
<i>S</i>	sand
<i>Sh</i>	shells
<i>Sp</i>	specks
<i>Spq</i>	sponge
<i>St</i>	stones
<i>Vol Ash</i>	volcanic ash

b. Quality.

<i>brk</i>	broken
<i>crs</i>	coarse
<i>dk</i>	dark
<i>fly</i>	flinty
<i>fne</i>	fine
<i>glac</i>	glacial
<i>gty</i>	gritty
<i>hrd</i>	hard
<i>lrg</i>	large
<i>lt</i>	light
<i>rky</i>	rocky
<i>sft</i>	soft
<i>sml</i>	small
<i>spk</i>	speckled
<i>stf</i>	stiff
<i>stk</i>	sticky

c. Color.

<i>bk</i>	black
<i>br</i>	brown
<i>bu</i>	blue
<i>gn</i>	green

<i>gy</i>	gray
<i>rd</i>	red
<i>wh</i>	white
<i>yl</i>	yellow

18. RELATING TO BUOYS AND BEACONS.

<i>B</i>	black
<i>Bn</i>	beacon
<i>Br</i>	brown
<i>C</i>	can
<i>Chec</i>	checkered
<i>G</i>	green
<i>HB</i>	horizontal bands
<i>HS</i>	horizontal stripes
<i>N</i>	nun
<i>R</i>	red
<i>REF</i>	reflector
<i>VS</i>	vertical stripes
<i>W</i>	white
<i>Y</i>	yellow

19. RELATING TO STATIONS.

FP.....	flagpole
FS.....	flagstaff
F TR.....	flag tower
LOOK TR.....	lookout tower
LSS.....	lifesaving station
NRC.....	naval radio direction-finder (radio compass station)
NRS.....	naval radio station
PIL STA.....	pilot station
R Bn.....	radio beacon
RS.....	radio station
R Tr.....	radio tower
SIG STA.....	signal station
S PIPE.....	standpipe

STA.....	station
WB SIG STA.....	Weather Bureau signal station

20. GENERAL ADJECTIVES.

<i>aband</i>	abandoned
<i>abt</i>	about
<i>anc</i>	ancient
<i>approx</i>	approximate
<i>bet</i>	between
Cl.....	clearance
<i>Concr</i>	concrete
<i>Conspic</i>	conspicuous
cor.....	corner
<i>discontd</i>	discontinued
<i>dist</i>	distant
<i>elec</i>	electric
<i>estab</i>	established
<i>exper</i>	experimental
<i>extr</i>	extreme
<i>fl</i>	flood
<i>gt</i>	great
<i>lrg</i>	large
<i>maintd</i>	maintained
<i>mid</i>	middle
<i>mod</i>	moderate
No.....	number
<i>priv</i>	private, privately
<i>prom</i>	prominent
<i>sml</i>	small
<i>std</i>	standard
<i>subm</i>	submerged

PART II

MILITARY MAPPING SYMBOLS

CHAPTER 7

MILITARY UNITS

21. IDENTIFICATION. **a.** The symbols in chart 13 are used to indicate military units or their activities on maps, sketches, and overlays. Where the use of the identifying symbol of a military unit is impracticable, abbreviations are employed.

b. These symbols are used either within a rectangle to indicate a military unit, a triangle to indicate an observation post, or a circle to indicate a supply point.

22. SIZE. The symbols in chart 14 are used to indicate the size of a military organization. They are used mainly with boundary symbols, or with rectangles, triangles, or circles in conjunction with the symbols in chart 13. See charts 17 and 26-40.



















Antiaircraft Artillery	
Armored Command	
Army Air Forces	
Artillery, except Antiaircraft Artillery	

Chart 13 —Military units—identification.

Cavalry (horse)	
Mechanized	
Chemical Warfare Service	
Engineers	
Special (amphibian)	
Infantry	
Medical Corps	
Military Police	
Ordnance Department	
Quartermaster Corps	
Signal Corps	
Tank destroyer	
Transportation Corps	
Veterinary Corps	

NOTES.—1. Coast Artillery Corps uses the artillery symbol, with appropriate abbreviations. See chart 31.

2. Airborne units are designated by combining a gull wing symbol with the arm or service symbol. Examples:

 Airborne Artillery 

 Airborne Infantry 

3. For units attached to Air Forces, the arm or service symbol is placed over the Air Forces symbol. Examples:

 Aviation signal unit 


 Aviation ordnance unit 

Chart 13.—Military units—identification—Continued.

The following symbols are placed either in boundary lines (see chart 17) or above the rectangle, triangle, or circle inclosing the identifying arm or service symbol.

Squad	•
Section	••
Platoon	•••
Company, troop, battery, or Air Forces flight	I
Battalion, cavalry squadron, or Air Forces squadron	II
Regiment or group; combat team (with abbreviation CT following identifying numeral)	III
Brigade, combat command of armored division, or Air Forces wing	X
Division, or command of an Air Force	XX
Corps or Air Force	XXX
Army	XXXX
Service command, department, or section of communications zone	OOO
Communications zone	OOOO
General Headquarters	GHQ

Chart 14.—Military units—size.

CHAPTER 8

MILITARY ACTIVITIES

23. GENERAL. **a.** This chapter contains symbols used for military purposes on maps, charts, and overlays. These symbols are authorized for all military use, but they are used mainly on large-scale maps. No departures from these symbols should be made unless none of these signs applies or when the scale of a map prevents their use.

b. Special signs and symbols of a technical nature, such as signal wiring diagrams, construction blueprints, engineer construction symbols, or coast artillery fire-control maps, may be found in Field and Technical Manuals of the arm or service concerned.

24. COLOR. When colors are used, military symbols representing objects in territory occupied or controlled by our forces are shown in blue, and those in territory occupied or controlled by the enemy are shown in red. The only exceptions are the following:

a. Symbols for areas to be covered by friendly fire or gas, although generally located in enemy territory, are executed in blue.

b. Symbols for gassed areas, wherever located, are always executed in red.




Military airdrome, general	
Commercial or municipal airfield	
Army Air Forces air base or service center	

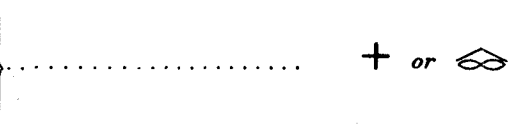
Chart 15.—Air activities.

Night fighter airdrome.....



Air field:

Landing
Satellite
Auxiliary
Advanced



Dummy.....



Dispersal point for airplane.....



Revetment, splinterproof, for airplane.....



Airship.....



Airship hangar.....



Airship mooring mast.....



Autogiro or helicopter.....












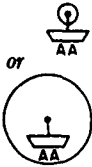

Radar station.....




(Type No. —)

Barrage balloon ascension point.....

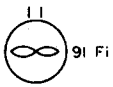


- Balloon barrage area (with number and height). 
- Antiaircraft defended area. 
- Searchlight belts. 
- Combined antiaircraft and searchlight area. 
- Restricted flying area. 
- Prohibited flying area. 
- Bomb line. 
- Free bombing area. 
- Antiaircraft ship (top of mast placed at exact location). 
- Antiaircraft ship, defended area (circle shows radius of effective action). 
- Convoy (arrow indicates direction; point of arrow is at position of convoy). 

Submarine (arrow indicates direction; top of tower is at position)..... 

Rendezvous point.....  RDV

Rally point.....  Rally Pt

Example, for separate units: 91st Fighter Squadron..... 

Targets:

Primary.....  PT

Alternate.....  ALT T

Last Resort.....  LRT

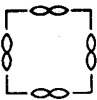
Aircraft patrol area..... 

Chart 15.—Air activities—Continued.















Antiaircraft unit symbol	
Balloon	
Barrage balloon ascension point	
Searchlight	
Radio detector (radar)	
Searchlight with radio detector	(Type No. →) 
Searchlight at principal control point	
Searchlight at subcontrol point	
Spread-beam searchlight	
Self-propelled antiaircraft artillery	
50-caliber antiaircraft machine gun	
4.7-inch antiaircraft gun	
3-inch antiaircraft gun	
90-mm antiaircraft gun (etc., caliber on right)	

Chart 16.—Antiaircraft' artillery activities.

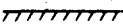
Squad	— • —
Section	— •• —
Platoon	— ••• —
Company or similar unit	— —
Battalion or similar unit	— —
Regiment or similar unit	— —
Brigade	— X —
Division	— XX —
Corps	— XXX —
Army	— XXXX —
Service command, department, or section of communications zone	— 000 —
Communications zone	— 0000 —
Rear boundary of theater of operations	— GHQ —
Front line	
Fighter aviation (limit of radius of action)	— ∞ Fi —
Observation aviation (limit of zone of re- connaissance)	— ∞ Obsn —
Limit of wheeled traffic by <i>day</i>	— DY —
Limit of wheeled traffic by <i>night</i>	— NT —
Line beyond which <i>lights</i> on vehicles are pro- hibited	— LT —
Outpost line	— OPL —
Main line of resistance	— MLR —
Regimental reserve line	— RRL —
Limiting point	— ⊗ —
Line of communication	— LC —
Line of departure	— LD —
Straggler line	— P —
Prisoner of War inclosure, IV Corps	PW ^{xxx}

Chart 17.—Boundaries and delimited areas.

Defense areas (consist of boundaries broken by unit symbol):

Squad.....



Section.....



Platoon.....



Demolitions.....



Gas (see also chart 18):

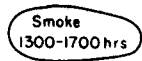
Area to be avoided.....



Area to be gassed, nonpersistent.....



Area blanketed by smoke (time effective).....



Target areas (indicate caliber; draw symbol to scale):

Primary, 60-mm mortar (50 yards square).....



Primary, 81-mm mortar (100 yards square).....



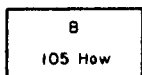
Secondary, 60-mm mortar (50 yards in diameter).....



Secondary, 81-mm mortar (100 yards in diameter).....



Normal, Battery B, 105-mm howitzer (100 by 200 yards).....



Emergency, Battery B, 105-mm howitzer (100 by 200 yards).....

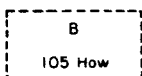
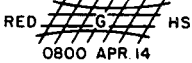



Chart 17.—Boundaries and delimited areas—Continued.


Arsenal (chemical warfare) 


Building, gasproof 

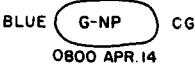
Demolitions, vesicant contaminated (show agent, time, and date) 


Dugout, gasproof 

Gas:


Area to be avoided (show agent, time, and date) 


Area to be blanketed by smoke (show time effective and date) 

Area to be gassed, nonpersistent (show agent, time, and date) 

Area to be gassed, persistent (show agent, time, and date) 

Mines:

Chemical land mine 

Chemical land-mine barrier (mines emplaced but unfired) 


Road-block obstacle, contaminated (show agent, time, and date) 

Chart 18.—Chemical warfare activities.

25. ROAD AND BRIDGE CLASSIFICATION.

On topographic maps, road classification is as shown in chart 8. Military traffic control symbols are shown in chart 24. For military field sketches and topographic reconnaissance, the classification system described in this paragraph is used. The characteristics of roads and bridges are indicated by the following symbols and abbreviations:

a. General road types.

Physical characteristics	Type of surface		
	All weather		Earth
	Paved: such as concrete, bituminous, brick, or other pavement	Improved: such as gravel, crushed rock, stabilized soil, select granular material, or other wearing material	Unimproved: dusty when dry; muddy when wet
Good road (gentle grades, gradual curves, smooth surface, good foundation).	A	C	E
Poor road (steep grades, sharp curves, rough surface, or poor foundation).	B	D	F (probably impassible in wet weather).

1 Includes roads of these materials which have had a treatment to lay dust or which are covered by a bituminous surface treatment or seal coat.

b. General characteristics of roads and bridges.

(1) *Traffic lanes.*

1, 2, 3, etc. Placed after road type symbol to indicate roadways suitable for continuous traffic in one, two, three, etc., lanes respectively.

1+ One-lane roadway having occasional passing locations, and suitable for very light two-way traffic.

1½ One-lane roadway having frequent passing location, and suitable for light two-way traffic.

2 Two-lane roadway having occasional one-lane defiles, and suitable for moderate two-way traffic.

(2) *Information.*

W Followed by numeral indicates clearance width in feet provided at most critical location. Symbol is preceded by numeral to indicate more than one such lane (for example, 2 W 9 indicates two separate lanes, each of which provides a clearance width of 9 feet).

Cl Followed by numeral indicates clearance height in feet between surface of roadway and overhead obstruction.

T Preceded by numeral indicates tonnage limitation. (Bridges.)

Mi Preceded by numeral indicates distance in miles.

I Followed by numeral indicates average interval of time (time-distance) in minutes required by motor vehicles during daylight to travel section of road shown.

c. Engineer characteristics of roads and bridges.

(1) Roads.

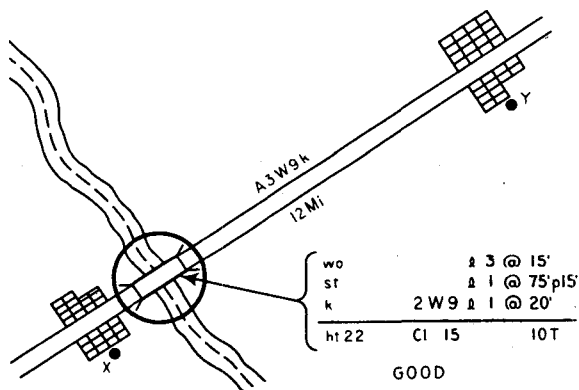
Concrete	k
Bituminous pavement, heavy duty	bt
Brick or block pavement	br
Bituminous surface treatment (except on concrete, brick, or block pavement), bituminous stabilized sand or gravel, or other bituminous type not suitable for heavy duty	bs
Crushed rock or macadam	m
Gravel	g
Stabilized soil, sand-clay, shell, cinders, disintegrated granite, or other select material	sm
Earth	ea

(2) Bridges.


Concrete, slab or beam	k
Concrete arch	ka
Steel beam	sb
Steel truss	st
Steel girder	sg
Stone arch	sa
Wood trestle	wo
Wood truss	wot
Length	l
Height above stream bed	ht
Panel length (trusses)	p
Condition (state as "excellent," "good," "fair," or "poor.")	


d. Example (see chart 19). Sketch between villages X and Y with good, all-weather, three 9-foot lanes, concrete road, 12 miles long, and a multiple bridge 140 feet long consisting of 45 feet of wood truss, and 20 feet of concrete beam and 75 feet of steel truss with 15-foot panels; 18-foot roadway width, 22 feet above stream bed, 15-foot clearance, capable of carrying 10 tons, and in good condition.

Road and bridge classification:



Special engineer landing craft:

Command and navigation, or patrol, boat . . . 

Landing craft, mechanized (LCM) 

Salvage boat 

Landing craft, vehicle-personnel (LCVP) 

Chart 19.—Engineer symbols.

Trench for one squad 

Isolated dugout 

Dugout in trench system 

Gasproof dugout 

Chart 20.—Field and permanent fortifications.

















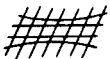

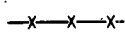
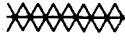



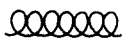
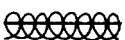
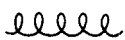
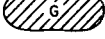
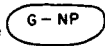
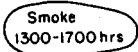
Surface shelter	Occupied	Unoccupied
(personnel capacity indicated)	10 	8 
Underground shelter	Occupied	Unoccupied
(personnel capacity indicated)	10 	6 
Surface shelter in trench system		
Underground shelter in trench system		
Gasproof surface shelter		
Fort, general		
Pillboxes:		
Concrete		
Steel turret		
Machine guns, direction of fire unknown		
Antitank guns, direction of fire unknown		
Direction of fire known, caliber unknown		
Machine guns, direction of fire known		
Antitank guns, direction of fire known		
Fortified area, general		

Chart 20.—Field and permanent fortifications—Continued.

Demolitions		Blue
Entanglements:		
Barbed wire, general		
Four-strand fence (protective wire)		
Double-apron fence		
Low-wire fence		
High-wire fence		
Combination band		
Loose wire rolls		
Dannert wire or concertina		
Concealed wire		

Gas (see also chart 18):

Area to be avoided	Red 
Area to be gassed, nonpersistent (indicate date and hour—see chart 18).	Blue 
Area blanketed by smoke (time effective).	

Mines and mine fields:

Land mines:

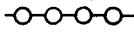




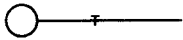
Single string of antitank mines	
Activated antitank mine	
Double antitank mine	
Double activated antitank mine	
Pressure type antipersonnel mine	
Trip-wire type antipersonnel mine	

Chart 21.—Obstacles.

Mines and mine fields—Continued.

Land mines—Continued.

Booby trap.....

Mine detector.....



Mine fields.—The color green should be used to designate mine field areas, demolitions, road blocks, and other engineer obstacle activities. The color green is to be used for no *other* military activity. When the color green is not available, the symbol will be executed in black.

To be reproduced in *green*
(in black if green is not available).

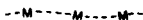
Mine belt; numerals in rectangle indicate number of mines in belt. *D* in rectangle represents dummy mine field. Mines in definite pattern; boundaries drawn to scale to indicate actual extent of belt.....



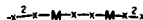
Boundary of mine field unfenced.....



Boundary of mine field indefinite, unfenced



Boundary of mine field, fenced with barbed wire. Numerals indicate number of strands in fence.....



Example of symbols in mine field. Scattered mines between boundaries and between belts are indicated schematically by small circular marks.....

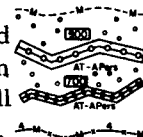


Chart 21.—Obstacles—Continued.

Marine mines, controlled..... 

(This symbol indicates one 19-mine group, and a separate symbol is used for each group. As it appears here, the upper edge of this page is assumed to be seaward; and on charts the symbols should be correspondingly placed. The length of a mine group being 1,800 feet, the symbol is drawn to scale. Its position represents the contemplated disposition of the mine group.)

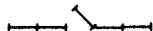
Leader gear..... 

(An energized cable to aid vessels through free passages in marine mine fields. Symbol is used on chart to show exact location.)










Chemical land mine..... 


Marine nets:

Torpedo net (with gate)..... 

Antisubmarine net (with gate)..... 



















Obstacle, general:

	Proposed	Prepared but passable	Completed
Individual.....			
Road block.....			
Bridge out.....			

Tank barrier..... 

Tank trap..... 

Chart 21.—Obstacles—Continued.

Filter center	
Information center	
Message Center	Msg Cen or 
Point on axis of signal communication (probable future location of command post)	
Examples:	
Artillery	
Cavalry	
Infantry	
Radar station	
Radio intercept station	(Type No. )
Radio station (transmitting and receiving)	 or RS ⊙
Radio direction—finder station (radio compass)	 or RC ⊙
Radio direction—finder station, mobile	
Radio direction—finder station, portable	 P1bl
Switching central (located at command post)	
Switching central	
Commercial switching central	 Coml
Teletypewriter central	
Test station or cable terminal	T Name
Visual signal	

NOTE.—For special symbols used in signal communication for wiring diagrams, line route maps, traffic diagrams, and signal operation maps, see FM 24-5 and TM 11-462.

Chart 22.—Signal facilities.

















Military post or station; command post or headquarters	
(Lower end of staff terminates at a military post or station or at an easily recognizable terrain feature near a command post or unit headquarters.)	
Troop unit	
(On large-scale maps where troop units can be shown to scale, this symbol may be modified as follows so as to show area occupied by units in column or line and direction in which they are facing):	
Line	
Column	
Arsenal	
Arsenal (chemical warfare)	
General hospital	
Laboratory, experimental center, or proving ground	
Point, any located (suitable description)	
Posts:	
Observation, general	
Fixed underwater, listening	
Visual signal	
Reception center	
Replacement training center	
Training center	
Weather station	

Chart 23.—Special buildings, posts, and centers.





























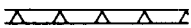
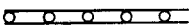
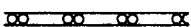




Debarkation or embarkation point	
Supply points:	
Occupied	
Proposed	
Examples:	
Railhead	
Class I supplies	
Ammunition (Class V supplies)	
Artillery ammunition	
Small-arms ammunition	
Class III supplies	
Water	
Engineer (arm or service symbol in circle)	
Procurement district, headquarters	
Railroad center	
Supply:	
Ammunition, all classes	
Ammunition, artillery	
Ammunition, small arms	
Class I	
Gasoline and oil	
Water	
Remount Service	

Chart 24.—Supply, transportation, traffic.

Petroleum supply:

Gas wells	
Oil wells	
Oil-well derrick	
Petroleum tank	
Bulk storage petroleum products	
Surface cable	
Submarine cable	
Submarine pipeline	
Gas pipeline	
Oil pipeline	
Petroleum products pipeline, general	

Trains (supply, motor)	
Animal-drawn	
Pack	
Railway	

Traffic and traffic control:




Railroad grade crossing	
Railroad above road	
Railroad beneath road	

Chart 24.—Supply, transportation, traffic—Continued.

Traffic and traffic control—Continued.













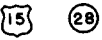




Boundary between two sections of roadway . . .	
Impassable roadway	
Bridge	
Tunnel	
Rotary traffic	
Turn-around location	
Parallel line to one-lane road indicates length of roadway where passing is possible	
One-way traffic	
Two-way traffic	
Alternating one-way traffic	
Dispatch route (operated by schedule system)	
Reserved route (can be used by specific traffic only)	
National and state route markers, respectively	
Military route marker	
Traffic post (or unit); traffic headquarters	
Marked road intersection (atlas-grid system)	
Line beyond which any lights (including black- out lights) are prohibited	

Chart 24.—Supply, transportation, traffic—Continued.






























Automatic rifle	
Automatic rifle (position prepared but not occupied)	
Machine guns (arrow points in principal direction of fire):	
Caliber .30, water-cooled, heavy	
Caliber .30, air-cooled, light	
Caliber .50	
Antiaircraft	
Sector of fire of single machine gun (arrows indicate sector of fire; heavy solid portion on solid arrow shows danger space when fire is placed on final protective line)	
Sector of fire of machine-gun section (two guns)	
Rifle, firing antitank grenade	
Rocket launcher, antitank	
Antitank gun, 75-mm (caliber specified on right).	
75-mm antitank gun in position with principal direction of fire	
37-mm antitank gun in position with principal direction of fire	
37-mm antitank gun emplacement, showing principal direction of fire	


Chart 25.—Weapons.

Gun.....		} Open when em- placement is un- occupied, thus... }	
Gun battery.....			
Howitzer or mortar.....			
Howitzer or mortar battery..... or	 or 		 or 
4.2-inch chemical mortar.....	 4.2 Cml		 4.2 Cml

Tanks:

Light.....	
Medium.....	
Heavy.....	

Self-propelled guns:

Howitzer (tank-chassis mounted; indicate caliber) ..  105

Mortar (indicate caliber).....  81

Gun (indicate caliber).....  37 AT

Ammunition carrier..... 

Chart 25.—Weapons—Continued.

CHAPTER 9

ILLUSTRATIONS OF MILITARY SYMBOLS

26. UNIT DESIGNATIONS.—This chapter contains examples[†] to illustrate the method of combining basic symbols and abbreviations in order to show the desired information. The following are general rules governing the application of these symbols to rectangles, triangles, or circles representing, respectively, troop units, observation posts, and supply points:

a. The basic symbol is placed in the center. (See chart 13.)

b. The symbol for the size of the unit is placed above.

c. Army and air force are shown by a number spelled out.

d. Corps and air force command are shown by Roman numerals.

e. When the symbol represents either an army or a corps in its entirety, the numeral designation is placed *inside* the box. When the symbol pertains to a unit within an army or corps, the army or corps numeral is placed on the right, *outside* the box.

f. Numbers designating battalions in a regiment are shown on the left, in Arabic numerals.

g. Numbers designating separate battalions are shown on the right, in Arabic numerals.

h. Numbers designating divisions, brigades, groups, regiments, separate companies, or similar separate units are placed on the right, in Arabic numerals.

i. Letters designating companies, troops, or batteries are in capitals and are shown on the left.

j. Companies, troops, batteries, or platoons (not separate), and other elements of a unit which are designated by name instead of by letter (for example, "Antitank Company" or "Headquarters and Service Troop"), are designated by the use of the proper abbreviation on the left.

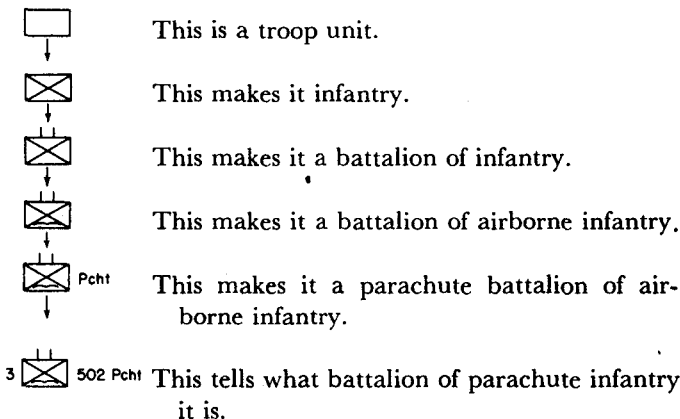
k. Abbreviations for explanatory purposes are shown on the right (see ch. 10).

l. Abbreviations are used instead of symbols to show information that cannot be indicated by a single symbol.

m. Calibers are shown by numbers placed under the symbol and the unit of measure is omitted.

27. APPLICATION OF SPECIAL SYMBOLS.

The following examples illustrate the method of combining basic symbols and abbreviations in order to show the desired information. These are only a few of the possible combinations. The following diagram illustrates how these symbols are built up:












88th Antiaircraft Artillery Brigade.....		88
3d Antiaircraft Artillery Group.....		3
302d Antiaircraft Balloon Battalion (low altitude).....		302 LA
101st Antiaircraft Balloon Battery (separate) (very low altitude).....		101 VLA
Headquarters Battery, 401st Antiaircraft Gun Battalion.....		Hq 401 90
Battery C, 228th Antiaircraft Searchlight Battalion.....		C 228
2d Platoon, Battery C, 119th Airborne Antiaircraft Battalion.....		2C 119 40
Battery D, 441st Antiaircraft Artillery Automatic Weapons Battalion (mobile).....		D 441 Mbl 40
Battery A, 105th Antiaircraft Artillery Automatic Weapons Battalion (self-propelled)...		A 105

Chart 26.—Examples—Antiaircraft Artillery.


















I Armored Corps	
1st Armored Division	 1
Combat Command A, 1st Armored Division	A  1
1st Armored Division Trains	 1
Transportation Platoon, Headquarters Company, 1st Armored Reconnaissance Battalion	T Hq  1 Rcn
Assault Gun Platoon, Headquarters Company, 1st Battalion, 1st Armored Regiment	Hq  1 75 SP
Company A, 1st Armored Regiment	A  1
1st Tank Group	 1
742d Tank Battalion (light)	 742(L)
6th Armored Artillery Group	 6
16th Armored Engineer Battalion	 16
Medical Detachment, 16th Armored Engineer Battalion	Det  16 Engr
6th Armored Infantry Regiment	 6
Assault Gun Platoon, Headquarters Company, 1st Battalion, 6th Armored Infantry Regiment	Hq  6 75 SP
Treatment Platoon, Company A, 47th Armored Medical Battalion	Treat A  47
Company A, Supply Battalion, 1st Armored Division	A Sup  1
Operations Platoon, 47th Armored Signal Company	Opn  47

Chart 27.—Examples—armored.
















First Air Force.....		First
IV Fighter Command.....		IV Fi
18th Fighter Wing.....		18 Fi
4th Reconnaissance Group.....		4 Rcn
5th Bombardment Squadron (heavy).....		5 Bomb (H)
54th Troop Carrier Group.....		54 Tr Carr
66th Service Squadron.....		66 Serv
12th Glider Squadron.....		12 Gli
88th Reconnaissance Squadron.....		88 Rcn
Air Support Control B, 8th Air Support Communications Squadron.....		B 8 A Spt Com
5th Photo Reconnaissance Squadron.....		5 Ph Rcn
16th Depot Repair Squadron, 15th Air Depot Group.....		16 Rep 15 A Dep
20th Air Base Security Battalion.....		20
23d Signal Company, Wing.....		23 Wg
Company C, 321st Engineer Aviation Battalion.....		C 321

Chart 28.—Examples—Army Air Forces.

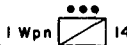
Machine Gun Platoon, Troop A, 5th Cavalry . . .



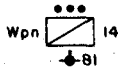
Caliber .50 Machine Gun Section, Troop A, 5th Cavalry



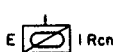
1st Platoon, Weapons Troop, 14th Cavalry



Mortar Platoon, Weapons Troop, 14th Cavalry .



Troop E, 1st Reconnaissance Squadron, Mechanized



2d Platoon, Troop A, 4th Cavalry, Mechanized.



Antitank Platoon, Headquarters Troop, 2d Cavalry Brigade



1st Tank Platoon, Troop E, 1st Reconnaissance Squadron

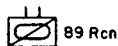


5th Cavalry Group, Mechanized

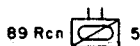


89th Cavalry Mechanized Reconnaissance Squadron:

Acting alone



Acting as part of 5th Cavalry Group



Reconnaissance Troop (Mechanized) 9th Cavalry Division



1st Cavalry Division



Command Post, 5th Cavalry



Observation Post, 9th Cavalry



Park, Mechanized Cavalry Group



Chart 29.—Examples—Cavalry.












2d Platoon, 1st Chemical Company, Service Aviation.....		2 Serv Avn
10th Chemical Company, Maintenance		10 Maint
Company B, 2d Separate Chemical Battalion.....		B 2 Bn (Sep)
3d Battalion, 901st Chemical Regiment.....		3 901
Proposed Chemical Warfare Supply Point, IV Corps.....		XXXX
Chemical Depot, First Army.....		XXXX First

Chart 30.—Examples—Chemical Warfare Service.

Searchlight Battery, 104th Coast Artillery, Harbor Defense Type A.....		104 HD (A)
912th Coast Artillery (Railway).....		912 Ry
57th Coast Artillery (155-mm gun).....		57 CA 155
4th Battalion, 241st Coast Artillery, Harbor Defense, Type C.....		4 241 HD (C)
Command Post, Battery E, 248th Coast Artillery, Harbor Defense, Type B.....		E 248 HD (B)

NOTE.—For Antiaircraft Artillery Symbols see chart 26.

Chart 31.—Examples—Coast Artillery Corps.

Company A, 2d Engineer Combat Battalion.....	A		2
8th Engineer Squadron.....			8
Company A, 16th Armored Engineer Battalion...	A		16
Motorized Company, 126th Engineer Mountain Battalion.....	A		126 Mtn
Company B, 905th Engineer Heavy Ponton Battalion.....	B		905 Hv Pon
Parachute Company, 307th Airborne Engineer Battalion.....	Pcht		307
2d Platoon, Company B, 28th Engineer Aviation Battalion.....	2 B		28
2d Platoon, 70th Engineer Light Ponton Company.....	2		70 L Pon
Engineer Depot Number 2, First Army.....	2		First
Proposed Engineer Park, II Army Corps....	Prk		II
2d Platoon, Company B, 84th Engineer Camouflage Battalion.....	2 B		84 Cam
2d Platoon, Photomapping Company, 660th Engineer Topographic Battalion.....	2 B		660 Topo
1st Platoon, 195th Engineer Dump Truck Company.....	1		195 Dp Trk
2d Platoon, 391st Engineer Depot Company..	2		391 Dep
Company B, 801st Engineer Water Supply Battalion.....	B		801 W Sup
Second Boat Platoon, Company A, 531st Engineer Boat and Shore Regiment.	2 Bt A		531 Bt & Shore
Pioneer Platoon, Company D, 591st Engineer Boat and Shore Regiment..	Pion D		591 Bt & Shore

Chart 32.—Examples—Corps of Engineers.

















Battery F, 2d Field Artillery Battalion.....	F		2
Headquarters Battery, 1st Division Artillery...	Hq		1 Div
Ammunition Train, 82d Field Artillery Battalion (horse).....	Am Tn		82 H
Headquarters and Headquarters Battery, 4th Field Artillery Battalion (Pack).....	Hq		4 Pk
Gasoline Section, Service Battery, 54th Field Artillery (105-mm Howitzer, armored)...	▼ Serv		54 105
8th Field Artillery Battalion.....			8
Headquarters and Headquarters Battery, 11th Field Artillery Brigade.....	Hq		11 Brig
2d Section, Battery B, 71st Field Artillery Battalion, horse-drawn.....	2 B		71 H-Dr
Maintenance Section, Battery C, 98th Field Artillery Battalion (75-mm Howitzer, Pack).....	Maint C		98 Pk 75
Battery B, 1st Field Artillery Observation Battalion.....	B		1 Obsn
74th Field Artillery Brigade.....			74
125th Field Artillery Parachute Battalion.....			125 Pcht
131st Glider Field Artillery Battalion.....			131
18th Field Artillery Group.....			18
10th Armored Field Artillery Group.....			10
Forward Observation Post, Battery A, 1st Field Artillery Battalion.....	A		1

Chart 33.—Examples—Field Artillery.

















Headquarters Company, 29th Infantry	Hq		29
Intelligence and Reconnaissance Platoon, Headquarters Company, 19th Infantry	I & R		19
Maintenance Section, Transportation Platoon, Service Company, 5th Infantry	Maint		5
Kitchen and Baggage Train, 29th Infantry	Ki & Bdg		29
1st Platoon, Antitank Company, 4th Infantry	I AT		4
1st Cannon Platoon, Headquarters Company 6th Infantry	I Cn		6
Ammunition and Pioneer Platoon, Headquar- ters Company, 3rd Battalion, 10th Infantry	A & P 3		10
Weapons Platoon, Company A, 14th Infantry	Wpn A		14
60-mm Mortar Section, Company B, 15th Infantry	B		15
Light Machine-Gun Section, Company E, 17th Infantry	E		17
Machine Gun Section, 2d Platoon, Company D, 20th Infantry	2D		20
502d Parachute Infantry			502 Pcht
22d Motorized Infantry			22 Mtz
Company A, 41st Armored Infantry	A		41
Observation Post, 81-mm Mortar Platoon, Com- pany D, 23d Infantry	D		23
Proposed regimental Ammunition Supply Point, 27th Infantry			27

Chart 34.—Examples—Infantry.

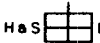



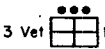

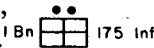
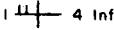

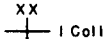
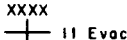
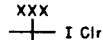

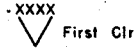

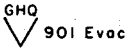
Headquarters and Service Company, 1st Medical Regiment.....	
Clearing Company D, 8th Medical Battalion....	
2d Platoon, Company A, 105th Medical Ambulance Battalion.....	
3d Platoon, Company A, 47th Medical Battalion Armored.....	
Clearing Platoon, Veterinary Troop, 1st Medical Squadron.....	
First Army Medical Depot.....	
1st Battalion Section, Medical Detachment, 175th Infantry.....	
Battalion Aid Station, 1st Battalion, 4th Infantry.....	
Ambulance Loading Post.....	
Collecting Station, 1st Division.....	
11th Evacuation Hospital.....	
Clearing Station, I Corps.....	
Hospital Train.....	
Veterinary Clearing Station, First Army.....	
5th Platoon, 12th Veterinary Company.....	
901st Veterinary Evacuation Hospital.....	

Chart 35.—Examples—Medical Department.
















2d Ordnance Company, Heavy Maintenance (Army).....		2 Hv Maint
3d Ordnance Company, Heavy Maintenance (Tank).....		3 Hv Maint (TK)
Service Section, 28th Ordnance Company (Medium Maintenance).....	Serv 	28 M Maint
Magazine Platoon, 51st Ordnance Company (Ammunition).....	 1	51 Am
3d Platoon, 95th Ordnance Company, Railway Artillery Maintenance.....	3 	95 Maint (Ry)
Company B, 19th Ordnance Battalion (Armored).....	B 	19
Headquarters and Supply Section, 105th Ordnance Company (Medium Maintenance).....	H & S 	105 M Maint
Service Platoon, 73d Ordnance Company (Depot).....	Serv 	73 Dep
721st Ordnance Company (Aviation Air Base).....		721 Avn A B
1st Ordnance Battalion (Medium Maintenance).....		1 M Maint
1st Platoon, 104th Ordnance Evacuation Company.....	1 	104 Evac
319th Ordnance Maintenance Company, Antiaircraft.....		319 Maint (AA)
7th Ordnance Maintenance Battalion, Motorized.....		7 Maint (Mtz)
61st Ordnance Maintenance Company, Airborne.....		61 Maint
419th Ordnance Platoon, 531st Engineer Special Brigade.....	419 	531 AE

Chart 36.—Examples—Ordnance Department.















Class I Supply Point, Third Army, proposed . . .	XXXX 	Third
Class III Railhead, Third Army, proposed . . .	XXXX 	Third Rhd
Second Army Quartermaster Depot Number 1 (Class III)	XXXX I 	Second
Third Army Quartermaster Depot No. 2	XXXX 2 	Third
III Corps Quartermaster Park, proposed	XXXX Prk 	III
Truckhead, Class I Supply, Third Army, proposed	XXXX 	Third Trk Hd
Salvage Collecting Point, 3d Division, pro- posed	Solv Coll 	3
105th Quartermaster Car Company		105 Cor
2d Platoon, Company K, 48th Quartermas- ter Regiment (Truck)	2 K 	48 Trk
Pack Troop, 16th Quartermaster Squadron . . .	E Pk 	16
681st Quartermaster Battalion (Sterilization) . .		681 Ster
Company A, 203d Quartermaster Battalion (Gasoline Supply)	A 	203
Company D, 94th Quartermaster Battalion (Bakery)	D 	94 Bkry
Company A, Supply Battalion, 1st Armored Division	A Sup 	I

Chart 37.—Examples—Quartermaster Corps.















Headquarters Platoon, Company A, 51st Signal Battalion.....	Hq A  51
Radio Operation Platoon, Headquarters and Headquarters Company, 51st Signal Battalion.....	Rod Opn  51
Teletypewriter Operation Platoon, Company B, 57th Signal Battalion.....	Tt Opn B  57
59th Signal Construction Battalion.....	 59 Cons
Installation and Maintenance Platoon, Company B, 64th Signal Operation Battalion.....	IaM B  64 Opn
Command Post Section, Message Center Platoon, Headquarters Company, 59th Armored Signal Battalion.....	CP Msg Cen  59
Radio Intelligence Platoon, Company A, 318th Signal Battalion (Aviation), Air Support Command.....	Rad Int A  318
Teletypewriter Operation Platoon, 263d Signal Operation Company, Separate.	Tt  263 Opn
83d Signal Troop, 1st Cavalry Division.....	83  1
93d Signal Company, 421st Engineer Special Brigade.....	93  421 AE
365th Airborne Signal Company.....	 365
20th Signal Fixed Radio Station Company.....	 20 Fxd Rad Sta
10th Signal Mobile Photographic Laboratory Unit.....	 10 Mbl Photo Lab
3d Intercept Platoon, 318th Signal Radio Intelligence Company.....	3  318 Rod Int

Chart 38.—Examples—Signal Corps.

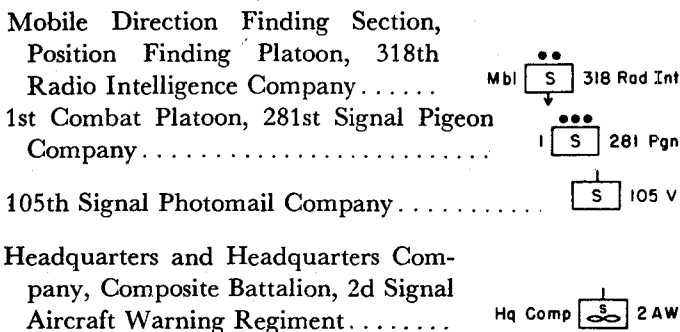


Chart 38.—Examples—Signal Corps—Continued.

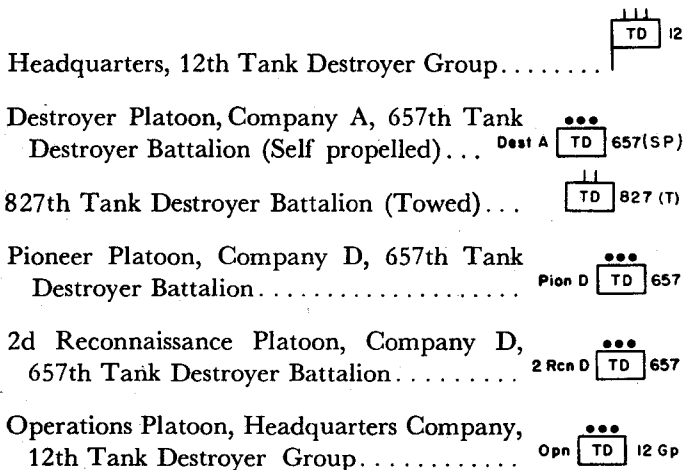


Chart 39.—Examples—Tank Destroyer.
















Headquarters, Military Railway Service	 MRS
707th Railway Grand Division	 707 GD
714th Railway Operating Battalion	 714 Ry Op
753d Railway Shop Battalion	 753 Ry Sh
Headquarters and Headquarters Company, 12th Port	Hq  12 P
194th Port Company	 194 P
Transportation Corps, Water Division	 W
Transportation Corps, Rail Division	 R
Transportation Corps, Highway Division	 H
Transportation Corps, Transit Storage Division	 TS
Transportation Corps, Traffic Control Division	 TC
Consolidating Station	 C Sta
Holding and Reconsignment Point	 H&RP
Port Agency	 PA
Port of Embarkation	 PE

Chart 40.—Examples—Transportation Corps.

PART III

MILITARY ABBREVIATIONS

CHAPTER 10

LIST OF MILITARY ABBREVIATIONS

28. GENERAL. This chapter is concerned primarily with abbreviations found only in Army field work.

29. DATES AND HOURS. **a. Dates.** Dates are written with the day preceding the name of the month, thus: 15 Jan 1943.

b. Time. Time is indicated according to the 24-hour clock system, in four-digit numbers, the first two digits representing the hour, the second two digits the minutes.

Examples:

0001 means 1 minute after midnight.

0630 means 6:30 in the morning.

1500 means 3:00 in the afternoon.

c. Dates with hours. Dates with hour designations are written as follows:

0630, 15 Jan 1943.

A six digit number may be used, in which case the month is assumed to be the current one. The first two digits indicate the day of the month, and the last four the hour, as explained above. For example: 150630 means 6:30 in the morning of the 15th day of the current month.

d. Greenwich time. If the time is based on Greenwich rather than on local time, the letter "Z" is placed after the hour designation. For example:

0630Z

150630Z

30. LIST OF ABBREVIATIONS AND ITS USES. a.

Kinds of abbreviations. This manual contains abbreviations authorized for use in *field work*, such as field orders, field maps, and messages. For abbreviations used in administrative work, see AR 850-150. In addition to those on the following list the Army is also authorized to use common abbreviations that are generally accepted, such as ft for foot.

b. Capitalization. All abbreviations used in field work have a capitalized initial letter.

c. Punctuation. All abbreviations used are written without periods.

List

A

acting	Actg
adjutant (1st staff section, brigades and lower units)	S-1
administrative (orders or officer)	Adm (O)
advance	Adv
advance guard	Adv Gd
advance message center	Adv Msg Cen
aeronautic, aeronautical	Aero
agent	Agt
air	A
air base	AB
Airborne Command	A/B Comd
aircraft warning (company)	AW (Co)
air depot	AD
airdrome	Adrm

air field	AFld
air force	AF
air intelligence (section)	A Int (Sec)
airport	Aprt
airship	Ash
Air Support Command	ASPTC
Air Support Control	A Spt Contl or AS Contl
alternate target	Alt T
ambulance loading post	ALP
American Expeditionary Forces	AEF
ammunition (train)	Am (Tn)
ammunition supply point	ASP
amphibian truck (company)	Amph Trk (Co)
Amphibious Command	Amph Comd
animal-drawn	Anl-Dr
antiaircraft artillery	AAA
Antiaircraft Artillery Intelligence Service	AAAIS
antiaircraft balloon	AA/B
antimechanized	AMecz
antipersonnel	APers
Antisubmarine Command	Antisub Comd
appendix	App
approximate	Approx
armored car	Armd C
armored	Armd
armorers	Armr
armor-piercing	AP
Army Engineer Service	A Engr Serv
Army headquarters	AHQ
Army medical (laboratory) (serv- ice)	A Med (Lab) (Serv)
Army Postal Service	APS
Arsenal	Ars
artificer	Artif

artillery (brigade) (horse) (liaison officer).	Arty (Brig) (H) (LnO)
attack	Atk
automatic	Auto
automatic weapons	AW
aviation gasoline	Agas
aviation oil	Aoil

B

baggage	Bag
bakery	Bkry
balloon	Bln
Balloon Barrage Training Center . .	BBTC
barrage balloon (battalion)	Bar Bln (Bn)
base depot company	BD Co
base point	BP
basic	Bsc
Basic Field Manual	BFM
battalion (combat train)	Bn (C Tn)
battalion adjutant	Bn S-1
battalion beachhead	BBH
battalion intelligence officer	Bn S-2
battalion landing team	BLT
battalion plans and training officer .	Bn S-3
battalion supply officer	Bn S-4
battery commander	BC
battle reconnaissance	B Rcn
bench mark	BM
bicycle	Bcl
bill of lading	B/L
bivouac	Biv
blacksmith	Blksm
boat	Bt
boiler and smith shop company . . .	Blr & Sm Sh Co
bomber	Bmr
bomb line	BL

bomb service truck	BSTrk
boundary	Bd
bridge train (heavy) (light)	Br Tn (Hv) (L)
brigade	Brig
brigade adjutant	Brig S-1
brigade intelligence officer	Brig S-2
brigade plans and training officer	Brig S-3
brigade supply officer	Brig S-4
brigade headquarters	BHQ
Browning automatic rifle	BAR
bugler	Bglr
bulk storage petroleum	BSpet

C

camouflage	Cam
cannon (platoon)	Cn (Plat)
Carbine	Cbn
carpenter	Cptr
car repair company	Car Rep Co
cemetery	Cem
center, central	Cen
central interpretation unit	CIU
character	Char
chauffeur	Cfr
chemical agent, nonpersistent	G-NP
chemical agent, persistent	G-P
chemical mortar, 4.2-inch	4.2 Cml Mort
chief	C
chief of	Cof
Chief of Transportation	CofT
Chief Signal Officer	CSigO
civil (or civilian)	Civ
Class I supplies	Cl I Sup
clearing company	Clr Co
close-in	CL
clothing	Clo

coast defense	CD
coastal frontier	CF
collecting (company) (point) (station).	Coll (Co) (Pt) (Sta)
combat (car) (zone)	C (Car) (Z)
combat command	CC
combat crew	CCr
combat group	C GP
combat team	CT
command and navigation boat	C&N Bt
commercial	Coml
commissary	Comm
communication	Com
communications zone	Com Z
composite	Comp
computer	Cmptr
concentration	Conc
consolidating station	C Sta
construction	Cons
contact party	Con Pty
continuous wave	CW
control	Contl
convalescent (hospital)	Conv (Hosp)
copilot	CoP
counterreconnaissance	C-Rcn
crew chief	CrC
crossroads	CR
current	Cur

D

dead reckoning	D/R
delivered or delivery	Delv
demolition (squad) (officer)	Dml (Sqd) (O)
depot	Dep
deserted or desertion	Des
detail	Dtl

direction finding	D/F
director	Dir
direct support	D/S
distant	Ds
distant surveillance section	DS Sec
district engineer officer	DEO
district transportation officer	DTO
division ammunition office	DAO
division beachhead	DBH
division headquarters	DHQ
division service area	DSA
draftsman	Drftm
drawn	Dr
driver	Dvr
Duty officer	DO

E

electrical or electrician	Elec
element	Elm
eliminate	Elim
embarkation	Emb
emplacement	Empl
enemy aircraft	E/A
engine house company	Eng Hse Co
entrucking point	EP
erecting and machine shop company	Erect & Mach Sh Co
estimated time arrival	ETA
evacuation	Evac
exclusive	Excl

F

field laboratory	F Lab
field remount depot	F Rmt Dep
field train	F Tn
fighter	Fi
fighter control area	FCA

film strip	FS
filter	Fil
filter center	Fil Cen
final protective line	FPL
fire-direction center	Fdc
first lieutenant	1st Lt
fixed	Fxd
flash ranging	FR
forward interpretation unit	FIU
from	Fr
furnished	Furn

G

garage	Gar
gas, nonpersistent	G-NP
gas, persistent	G-P
gasproof	G-Pf
general dispensary	Gen Disp
general hospital	Gen Hosp
general service schools	GSS
general service	Gen Serv
general support	G/S
Geological Survey	Geol Surv
glider	Gli
grand division (railway)	Gr Div (Ry)
graves registration (battalion) (company)	Gr Reg (Bn) (Co)
ground	Grd
ground control interception	GCI
groupment	Gpmt
gun	G

H

half-track	H-Trk
harbor	Har
Harbor Boat Service	HBS

harbor craft (company)	Har Cft (Co)
harbor defense command	HDC
headquarters	Hq
headquarters and service (battery) (company) (troop)	H&S (Btry) (Co) (Tr) or Hq & Serv (Btry) (Co) (Tr)
heavy weapons company	Hv Wpn Co
highway	Hwy
highway transportation officer	HTO
holding and reconsignment point	H & RP
horizontal control operator	HCO
horse	H
horse-drawn	H-Dr
hospital	Hosp

I

Impregating	Impreg
Include	Incld
inclusive	Incl
indicated air speed	IAS
information	Info
information center	IC
initial beachhead	IBH
initial point	IP
instrument	Inst
intelligence	Int
intelligence officer	S-2 or Int O
interceptor	I
interpreter	Intpr

J

join	Jn
----------------	----

K

killed	Kd
------------------	----

L

labor	Lbr
laboratory	Lab
landing craft, mechanized	LCM
landing craft, personnel	LCP
landing craft, vehicle	LCV
landing craft, vehicle-personnel	LCVP
landing craft, tank	LCT
land mine	LM
last resort target	LRT
legislative	Leg
liaison	Ln
lieutenant colonel	Lt Col
lieutenant general	Lt Gen
light machine gun	LMG
lights	Lgts
linemen	Lmn
line of departure	LD
lines of communication	LC
long wheelbase	LWB
low altitude	LA

M

machinist	Machst
main line of resistance	MLR
main supply road	MSR
maintenance of equipment	Maint of E
maintenance of way	Maint of W
major general	Maj Gen
material	Mat
medium (tank)	M (Tk)
meterologist	Metgst
military attaché	Mil Att or MA
Military Railway Service	MRS
minimum altitude	Min Alt
mobile	Mbl
Mobilization Training Program	MTP

motorcyclist	Mtrcrlt
motor gasoline	Mgas
motor oil	Moil
motor-tricycle	Mtricl
move	Mv
movement	Mvmt
musician	Mus

N

navigation (officer)	Nav (O)
net control station	NCS
not yet returned	NYR
number	No

O

observation post	OP
officer in charge	O/C
one-pounder	1 Pdr
operation	Opn
operator	Opr
order, orders	O
orderly	Odly
outpost line	OPL
outpost line of resistance	OPLR

P

parachutist	Pchst
park	Prk
party	Pty
patrol boat	PAT Bt
photograph or photographic	Photo
pigeon	Pgn
pioneer and demolition section	P & D Sec
plans and training officer	S-3
platoon	Plat
point	Pt
ponton	Pon
portable	Ptbl

port agency	PA
port of debarkation	PD
port transportation officer	PTO
postal (section)	Post (Sec)
primary target	PT
principal	Princ
prisoner	Pris
proving ground	PG

Q

quartermaster supply officer	QMSO
--	------

R

radio and panel section	R & P Sec
radio detector equipment	RADAR
radio intelligence (company)	Rad Int (Co)
railhead	Rhd
railhead officer	RHO
railroad	RR
railroad transportation officer	RTO
Railway Grand Division	Ry GD
railway traffic officer	R Traf O
range officer	Rg O
ration distributing point	RDP
railway shop battalion (Diesel)	Ry Sh Bn (Dsl)
rear (echelon) (guard)	Rr (Ech) (Gd)
received	Recd
reconnaissance (long range) (medium range)	Rcn (LR) (MR)
reconstruction park	Recons Prk
recreation	Rec
reduce or reduced	Rd
refrigeration	Ref
regimental adjutant	Regtl S-1
regimental beachhead	RBH
regimental headquarters	RHQ

regimental intelligence officer	Regtl S-2
regimental orders	RO
regimental plans and training of- ficer.	Regtl S-3
regimental reserve line	RRL
regimental supply officer	Regtl S-4 or RSO
regulating (station)	R (Sta)
reinforced	Reinf
rejoined	Rejd
release point	Rel Pt
rendezvous point	RDV Pt
repair shop company	Rep Sh Co
replacement	Repl
report, reporting	Rpt
reproduction	Repro
rescinded	Resc
Reserve	Res
retired	Ret
rifle (Company)	R (CO)
road bend	RB
road junction	RJ
road space	RS
rocket	Rkt
rocketeer	Rktr
rocket launcher	RL

S

sales Commissary (Battalion) (Company)	Sales Comm.(Bn)(Co)
salvage	Salv
sanitary	Sn
schedule	Scd
scout	Sct
scout car	Sct C
searchlight	SL
second lieutenant	2d Lt

self-propelled	SP
self-propelled mount	SPM
semiautomatic rifle	SAR
semimobile	Sem
sentence	Sent
sentenced	Sentd
shipment	Shipt
shipping ticket	S/T
shop (battalion)	Sh (Bn)
short wheelbase	SWB
signal	Sig
signal operations instructions	SOI
small arms	SA
small boat (company)	S BT (Co)
sound and flash (battalion)	S&F (Bn)
sound locator	S-L
sound ranging	SR
specialist	Specl
special messenger	Sp Msgr
special troops	Sp Trs
staff	Stf
staging area (company)	St Ar (Co)
stenographer (s)	Steno
sterilization	Ster
stevedore	Stev
straggler line	Strag L
submarine	Subm
supply	Sup
supply point	SP
support	Spt
support line	SL
surgeon	Surg
surgical (hospital)	Surg (Hosp)
surrender or surrendered	Surr
survey	Surv

switchboard	Sb
switching central	Sw C

T

tactical	Tac
Tank Destroyer	TD
technical	Tech
telegram	Telg
telegraph printer	Tgp
teletypewriter	Tt
teletypewriter center	Ttc
theater headquarters	THQ
time lengths	TL
toolmaker	Tlmk
topographic, topographical	Top or Topo
torpedo	Tor
tractor	Trac
tractor-drawn	Tr-Dr
traffic	Traf
traffic control station	TCS
train commander	Tn Co
training circular	TC
training film	TF
training unit	TU
transit storage	TS
transport, transportation	T or Trans
transportation company	T Co
trench mortar	T Mort
troop (s)	Tr (s)
troop carrier (squadron)	Tr Carr (Sq)
truck-drawn	Trk-Dr
truck head	Trk Hd

U

unit of fire	U/F
Unit Training Center	UTC

United States Army Transport USAT

V

vertical control operator VCO
very low altitude VLA
visual Vis
volunteer Vol

W

warrant Wrnt
warrant officer WO
water supply W Sup
water tank (battalion) (train) W Tk (Bn) (Tn)
weapon carrier Wpn Carr
weapons (troop) (platoon) Wpn (Tr) (Plat)
welder Wldr
winch Wn
wrecker Wkr

Z

zone of fire Z/F
zone transportation officer ZTO

APPENDIX

LIST OF REFERENCES

Maps and Mapping	AR 300-15
Authorized Abbreviations and Symbols for Military Records and Administrative Spe- cial Orders Except Field Orders and Mes- sages	AR 850-150
Coast Artillery, Reference Data	FM 4-155
Engineer, Reference Data	FM 5-35
Obstacle Technique	FM 5-30
Carpentry	TM 5-226
Topographic Drafting	TM 5-230
Field Artillery, Reference Data	FM 6-130
Medical Department, Reference Data	FM 8-55
Reference Data	TM 11-462
Armored Force Field Manual, Tactics and Technique	FM 17-10
List of Publications for Training	FM 21-6
Elementary Map and Aerial Photograph Reading	FM 21-25
Advanced Map and Aerial Photograph Reading	FM 21-26
Sketching	FM 21-35
Soldier's Handbook	FM 21-100
Infantry Drill Regulations	FM 22-5
Signal Communication	FM 24-5
Motor Transport	FM 25-10
Foreign Conventional Signs and Symbols	FM 30-22

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